G-E Prepares Sales Portfolio on All-Electric Kitchen

CLEVELAND—Pictorial beauty and simplicity of arrangement distinguish General Electric's all-electric kitchen demonstration and sales portfolio compiled by the specialty appliance sales department here.

The loose-leaf volume is conveniently tabbed for easy location of its eight divisions—General Electric Kitchen, General Electric Refrigerator, General Electric Range, General Electric Dishwasher, Sales Helps, Competitive Information, General Electric Co., and Prices.

Kitchen and Refrigerator

The first two sections of the book, on the kitchen and the refrigerator, have been illustrated in color and printed in large type especially for use as prospect demonstration material.

"Think what a pleasure it would be to work and live and plan your meals in a General Electric kitchen like this," is the way in which the housewife is introduced to a series of planned all-electric kitchens featuring attractiveness as well as convenience.

Advantages of Kitchen

Next are emphasized the four advantages of General Electric kitchens —"the steps it saves, the time it conserves, the better health it promotes, and the savings it effects on the monthly food bills."

The planned kitchen as a step saver is worked out by an actual tabulation of the steps taken by a housewife in making an apple pie. First, in the old-fashioned kitchen: "The housewife enters starting at the dining room door, goes to the stove (1-2-3-4) lights the oven and proceeds to the pantry (5-6-7-8) where she obtains bowls and other mixing equipment, returns to the working table (9-10-11-12) and again return to the pantry, obtains apples and paper for the apple peelings (13-14-15-16)," etc. After working it out similarly for the all-electric kitchen, where convenience of arrangement is considered, the manual draws a comparison between 105 steps in the old kitchen and 22 steps in the new.

Typical Layouts

Typical all-electric kitchens, and changes of the before-and-after type are then illustrated.

"Here every task is performed by electricity—woman's greatest servant," states the manual, "You have but to touch a switch to light, ventilate, mix, cook, refrigerate, clean, or bring the voice of your favorite Home Economist into your own kitchen. And one unit of electricity, a kilowatt hour, does the muscle work of thirteen people for one hour. What a perfect ensemble of charm, utility and economy."

Work of the General Electric Kitchen Institute in planning all-electric kitchens from sketches submitted by prospects of their own kitchen floor plans is next explained, together with the Step-by-Step plan of purchasing an all-electric kitchen one appliance at a time.

This leads automatically to the section on the General Electric refrigerator.

Section on Refrigerators

Ten double pages describe as many advantages of the General Electric refrigerator—one half of the spread being taken up with an appropriate illustration, and the other with an explanatory sales message.

"The General Electric refrigerator is MODERN," says the first page; and subsequent pages stress health, savings in time, convenience, simplicity of operation, dependability, efficiency, cleanliness, safety, and economy.

Concluding the refrigerator section are specifications, diagrams, and pictures of the various models. This same method is used in the range and dishwasher divisions, where the book changes from a presentation manual to a sales manual. Complete information for the salesman's use including discussion of the Calrod units, thrift cooker, etc. is contained in these two sections.

A bulletin, "Quick Facts about the General Electric Dishwasher," contains information on operation, special features, sales arguments and answers to questions, and suggestions for demonstating the dishwasher.

Sales Helps

The section devoted to Sales Helps is made up of salesman's bulletins containing useful selling tips.

Interesting subjects dealt with here include a discussion of why rising prices increase sales, a market breakdown giving statistics on what customers look for in a refrigerator, and an outline of the General Electric Specialist plan of selling.

As a part of the plan a practical kitchen approach is provided for the Specialist's use:

"Kitchen Specialist, carrying kitchen portfolio under his arm, approaches home and rings bell. 'Good morning, Mrs. Black, I am Mr. Blank, General Electric Kitchen Specialist of the Dash organization. Ordinarily I sell General Electric labor-saving equipment, but this morning I am not going to ask you to buy a thing. I merely want to get your opinion on a new kitchen planning idea that has been developed by the General Electric Company. It has to do with arrangement only, and will take only five minutes to get your opinion about it. You will extend me that privilege, won't you?"

Demonstrate G-E Plan

After gaining an entrance, the salesman demonstrates the General Electric plan for remodeling kitchens, pointing out results in the illustrated kitchen portfolio. High point of the visit is the moment when, at the end of five minutes, the salesman looks at his watch and apologizes for overstaying his promised amount of time. He leaves his demonstration in the air (cutting it off at an interesting point), and prepares to leave; only when he is assured he is not imposing on the prospect's time does he reopen the discussion.

Attempted Withdrawal

"The attempted withdrawal is important," says the manual. "How frequently a salesman asks for five minutes and finding an interested audience, stays an hour, agreeing to return again. After he has left, Mrs. Prospect looks at the clock and is suddenly aware that it's now 11:30 and that the beds are not made. 'Why did I let that salesman in?' says she, and when Mr. Salesman returns later, she is prepared to keep him out. By attempting to withdraw, the salesman relieves himself of this responsibility and sets the prospect at greater ease. It relieves the tension and removes the fear of high pressure. He will stand alone—the first salesman who asked for five minutes and attempted to stay no longer."

"America's Largest Electrical Workshop," an illustrated bulletin with pictures of G. E. plants, offices, and officials takes up the largest part of the section on the General Electric Co.

MRS. WANAMAKER HEADS CHARITY BALL

CHICAGO—Mrs. Duane Wanamaker of Park Ridge, wife of Duane Wanamaker, advertising manager of General Household Utilities Corp., was general chairman of a committee which sponsored a charity ball and radio star show held Nov. 4 at the Park Ridge Country Club. The affair was for the benefit of the Park Ridge School for Girls.

108,000 SEE REFRIGERATORS AT TEXAS STATE FAIR

DALLAS, Tex.—More than 108,000 visitors saw the displays of electric refrigerators which formed part of the exhibits at the State Fair of Texas which closed here Oct. 22 after a three week's run.

RADIO DISTRIBUTORS ADOPT SALES CODE

(Concluded from Page 1, Column 4)

pose of favoring or pushing the manufacturer's product, nor by furnishing the services of the distributors own employes for the purpose of relieving the dealer of expense of similar employes; nor by consignment of merchandise for any purpose whatsoever including displays of floor models."

"A 'dealer' is defined as one who purchases the products of the distributor and who maintains a suitable retail display room or store for the purpose of conducting a business of reselling such products and who is capable of rendering adequate service, and who purchases and keeps on display at all times at least three current models of standard brands of radio sets."

"The distributor shall not sell at wholesale discounts to service companies and service men anything except parts and accessories unless such can and do qualify as a franchised dealer as herein defined."

"The dealer agrees that his purchases from the distributor shall be confined to his own requirements for resale and not to be the combined purchases of two or more dealers grouped in any manner and the dealer will not consign, loan, supply, or sell to any other dealer for resale."

"The advertised price of an item is its list price as set forth in the manufacturer's advertising literature or distributor price list announcements and the dealer shall recognize that the price for a cash sale shall be the advertised price."

"Cooperative advertising or any advertising of products of the manufacturer will in no case be more favorable than a 50-50 basis and no greater than the advertising allowance made by the manufacturer to the distributor. A dealer's claim for advertising refunds shall be based only on the cost of actual space used. All costs of mechanical set-up and art work, etc., other than standard advertising mats or cuts supplied by the manufacturer, shall be borne in full by the dealer."

Distributors who signed the agreement include: Republic Supply Corp., Radio Distributing Co., Electrical Specialties Co., Aitken Radio Corp., Philco Detroit Co., Specialties Distributing Co., Buhl Sons Co., Gem-Ro-Lit Radio Corp., Michigan Majestic, Inc., Wilks Distributing Co., Ingram Ferguson Co., Automobile Equipment Co., General Electric Supply Corp. (pending approval of company headquarters).

BUSH COILS INSTALLED IN BROOKLYN BREWERY

HARTFORD, Conn.—To cool the fermenting and storage rooms of the City Brewing Co. of Brooklyn, Bush Mfg. Co. of this city has furnished two large finned coils with 1,480 lineal ft. of tubing and 3,655 sq. ft. of surface, according to C. T. Bappler of the Bush company. Mr. Bappler reports a number of other large orders for similar work.

At the Brooklyn brewery, air is cooled and dried in the main refrigerating room and carried by ducts to the fermenting and storage rooms.

The coils were installed by the Arctic Engineering Co., distributor for Baker Ice Machine Co., and built to specifications of Paulsen & Heintz, Inc., consulting engineers of New York City.

G-E CONTRACTS CORP. OPENS DALLAS OFFICE

DALLAS, Tex.—General Electric Contracts Corp. opened an office in the Interurban building here on Oct. 16 to handle the company's operations in the Southwest.

THE NEWSPAPER OF THE INDUSTRY

ELECTRIC REFRIGERATION NEWS

WRITTEN TO BE READ ON ARRIVAL

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PRICES WILL BE HIGHER ON 1934 NORGE MODELS

First Showing Made Of Commercial Machines

DETROIT—Prices on the 1934 line of Norge household refrigerators, effective when the models are shipped—probably about Feb. 1—have been announced by John H. Knapp, vice president in charge of sales of Norge Corp. here.

The prices will represent a considerable increase over those on corresponding models in the 1933 line. Prices on this year's line, as of Nov. 1, will remain in effect until shipments of '34 merchandise are made, says Mr. Knapp.

Following are the recommended installed prices (including tax) on the new line in the central zone:

Model A-47, $129.50; model D-55, $154.50; model L-71, $179.50 (these models comprise the standard line); model J-54, $174.50; model JP-54, $194.50; model K-67, $209.50; model KP-67, $229.50; model M-78, $274.50; model R-91, $339.50; and model W-110, $389.50.

New Products Featured At Convention

By Elston D. Herron

DETROIT—Packed with new things were the final three days of Norge Corp.'s distributor meeting here last week. As rapidly as stages could be set and introductory remarks made, distributors saw the first Norge commercial line, new washing machines, and winter air conditioners. And they heard about new finance plans and price increases.

First event of the second day was presentation of the Norge commercial compressors by Edward Hughes, chief commercial engineer, and Harry Newcomb, commercial sales manager.

In his presentation talk, Mr. Hughes said that all of these commercial units have rollator compressors, and use methyl chloride as the refrigerant. In general design and appearance, the commercial unit resembles the household rollator.

When placed on the market, probably sometime in March, there will be 11 models in the Norge commercial line, said Mr. Newcomb. In size, the units will range from ⅓ to 1½ hp., and will be of the standard, or normal, pressure type.

Eventually, he said, Norge will have a low-pressure line and a high-pressure line. The capacity range of Norge commercial units will also be increased, until the company has developed a 10-hp. job suitable for use with air-conditioning equipment.

In a short talk to the distributors, most of whom have had little or no experience in the commercial business, John H. Knapp, Norge Corp.'s vice president in charge of sales, pointed out that a good commercial sales volume will result only from establishment of a separate commercial department, and application of specialty methods to sales operations.

Distributors next witnessed presentation of Norge's winter air conditioner, the Aerolator, which humidifies, cleans, and circulates the air. The unit's mechanical features were discussed by L. S. Keilholz, who developed the conditioner and is in charge of all Norge air-conditioning engineering.

Except for minor changes, the unit's mechanism remains practically the

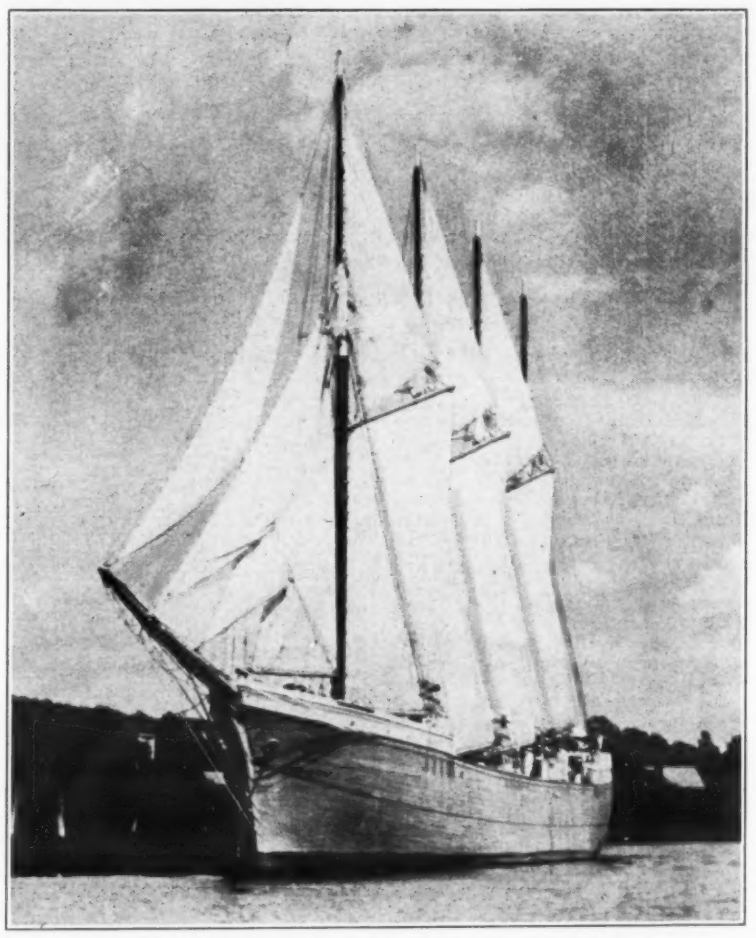
(*Concluded on Page 7, Column 1*)

Leonard Distributors Convene Friday

DETROIT—Distributors of the Leonard Refrigerator Co. will meet here for their annual convention Friday and Saturday, Nov. 17 and 18, according to Godfrey Strelinger, sales manager.

Friday will be taken up with sessions at the Players Club, where the 1934 Leonard line will be introduced, and to a banquet at the Book-Cadillac hotel. As guests of the company, the distributors Saturday will be taken to Ann Arbor, Mich., to see the Michigan-Minnesota football game.

Frigidaire's Four-Master



Frigidaire radio programs will be broadcast weekly by Phillips Lord from the schooner "Seth Parker" on its round-the-world voyage.

FRIGIDAIRE SPONSORS SETH PARKER CRUISE

DAYTON—Frigidaire Corp. this week launches a winter selling and advertising campaign in which newspaper advertising, direct mail promotion, and a novel radio program on a nation-wide hookup will be used to prepare the way for dealers and retail salesmen.

The newspaper copy breaks this week and the direct mail campaign is already under way. The radio broadcasts, which will feature Phillips Lord (the "Seth Parker" of radio and stage fame), will begin Tuesday, Dec. 5, and continue, on a once-a-week schedule, for a 13-week period.

The program will be a half-hour long and will go out over an NBC network of 57 stations. Broadcasts will start at 10 p. m. E.S.T.

Frigidaire's program will be known as "The Cruise of the *Seth Parker*," and will originate in the four masted windjammer of that name. The schooner now is being fitted out for a round-the-world cruise under the direction of Phillips Lord. Programs will be based on many picturesque stories and traditions surrounding the ports at which the *Seth Parker* will call on its voyage down the coast.

Captain Lord will command the expedition and will write the continuities, direct the programs, and assume the part of "Seth Parker" and narrator.

On Dec. 5 the first Frigidaire broadcast will come from the schooner as it rests in Portland harbor. Gov. Louis Brann of Maine and his staff will be on hand for the departure of the *Seth Parker*, as the boat will weigh anchor immediately after the broadcast.

Other stops contemplated during the

(*Concluded on Page 6, Column 3*)

Dec. 6 Issue to Feature New Commercial Installations

The most interesting commercial installations of the past season are to be described in the Dec. 6 issue of Electric Refrigeration News, featuring commercial refrigeration. Dealers and distributors are invited to submit details and photographs of unique installations, particularly those which show new or unusual applications of commercial refrigeration.

Plane Crash Kills Arthur Trostler Of Majestic

(*See Picture on Page 10*)

CHICAGO—Arthur A. Trostler, assistant to the general sales manager of Grigsby-Grunow Co. here, was instantly killed in an airplane crash on the outskirts of Portland, Ore., on the night of Nov. 9.

Mr. Trostler was on a business trip enroute from Portland to San Francisco, when the accident occurred. With him was E. J. Powers, Majestic divisional field representative, who escaped with minor injuries, although three other occupants met death and several were injured.

Prior to joining the Majestic organization, Mr. Trostler was sales manager of the Columbia Phonograph Co., general sales manager of the Brunswick Co., a subsidiary of Warner Bros., and was a sales executive of Fried-Eiseman Co. Previously he was secretary, treasurer, and general sales manager of Schmelzer-Adams Co., Kansas City, Mo.

BIG GENERATING PROJECTS NEED MORE POWER USERS

ATLANTA—Widespread distribution at low cost of standardized high-quality electrical appliances will be a necessary and integral part of the program which will have to be undertaken to absorb the tremendous surplus of electricity made available upon completion of the vast projects now under way by the federal government and other agencies, declared David E. Lilienthal, one of the directors of the Tennessee Valley Authority, in an address made here Nov. 10.

Complete electrification of the homes and farms of the nation, probably including even house heating and air conditioning, will be necessary if these projects are to be successful, Mr. Lilienthal stated.

The speaker declared that drastic revision of existing methods of distributing electrical appliances must be made.

"Home-owners must have the heavy-use appliances," said Mr. Lilienthal. "In the home they must have electric ranges, electric water heaters, electric refrigerators, and the like, with house heating and air conditioning within the range of probability. On the farms they must have motors for many purposes, as well as domestic appliances."

The speaker pointed out that the

(*Concluded on Page 6, Column 4*)

Commission Salesmen Must Receive Minimum Wages

COMMERCIAL CODE'S HEARING COMPLETED

WASHINGTON, D. C.—The code of fair competition proposed for the commercial refrigerator industry by the Commercial Refrigerator Manufacturers Association went through public hearings Thursday, Friday, and Saturday without any major additions or deletions being made to the submitted draft, according to R. M. McClure, secretary of the association.

The code is now being re-drafted for the inclusion of minor changes and altered wording, and will then be submitted to the various advisory boards of the National Recovery Administration. Final approval is expected in about three weeks, according to Mr. McClure.

Representing the industry at the hearings was the code committee consisting of E. L. Stultz of Viking Refrigerators, Inc., Kansas City, chairman; W. B. McMillan, Allied Store Utilities Co., St. Louis; H. M. Stewart, McCray Refrigerator Corp., Kendallville, Ind.; J. C. Hill, C. V. Hill & Co., Trenton, N. J.; R. E. Ottenheimer, Ottenheimer Bros., Inc., Baltimore; R. E. Frederick, Standard Refrigerator Co., Philadelphia.

H. C. Ahrens of the C. Schmidt Co.,

(*Concluded on Page 6, Column 4*)

A. M. SWEENEY NAMED G-E SALES MANAGER

CLEVELAND—A. M. Sweeney has been appointed sales manager of the electric refrigeration department of General Electric Co., according to P. B. Zimmerman, manager of the department, and Norman B. Ronning has been named to succeed Mr. Sweeney as manager of the department's production and distribution division.

Mr. Sweeney joined General Electric in 1910, starting in the engineering department of the old National Lamp Works at Nela Park. Later he served in the lamp laboratory.

In 1919, he was made manager of the Ohio Lamp Works at Warren, Ohio, and after five years there, was made sales manager of the Pacific Coast division of the old National Lamp Works.

Mr. Sweeney came to Cleveland in 1929 as assistant to the refrigeration department's manager. Soon after he was named manager of the production division, and later manager of the combined production and distribution division.

Mr. Ronning has been with General Electric since 1927, and has served in the production and distribution division since that time. He also becomes a member of the national sales committee of the electric refrigeration department.

At New G-E Post

A. M. SWEENEY
Appointed sales manager of General Electric's refrigeration department.

NRA Bulletin Interprets Retail Code for Salesmen

WASHINGTON, D. C.—Salesmen paid upon a commission basis—whether inside or outside salesmen—must receive not less than the minimum weekly wage rate prescribed in the code of fair competition for the retail trade, according to an official interpretation of the retail code made last week by the National Recovery Administration.

This information is contained in a bulletin (release No. 1554) of the National Recovery Administration and was corroborated in a letter written to ELECTRIC REFRIGERATION NEWS by Victor Sadd of the National Recovery Administration in answer to an inquiry made with respect to the matter of compensation of commission salesmen.

The interpretation contained in the bulletin reads as follows:

"In calculating the minimum wage it makes no difference upon what basis the employe is paid. Whether he is paid by the hour, by the week, by the month, *upon a commission basis*, by merchandise, by board, meals, or maintenance, or by any other method, he must receive an amount per week not less than the rates specified in the code. Salesmen paid upon a commission basis must receive not less than the minimum rate each week.

"The minimum wages stipulated for employes who are allowed to work longer hours than the basic work week for regular employes, such as professional persons, *outside salesmen, outside collectors*, etc.,—are the same per week as that for the regular employes of the same store."

The minimum wage scale under the code ranges from $15 to $10 a week on a scale combining population and work hours as follows:

	40-Hour Week	44-Hour Week	48-Hour Week
500,000 population..	$14	$14.50	$15
100,000 up	$13	$13.50	$14
25,000 up	$12	$12.50	$13

Within cities of from 2,500 to 25,000 population, the wages of all classes of employes shall be increased from the rates existing on June 1, 1933, by not less than 20 per cent, provided that this shall not require an increase in wages to more than the rate of $11 per week and provided further that no employe shall be paid less than at the rate of $10 a week.

Sixteen Southern states and the District of Columbia have a scale that is $1 lower. Juniors and apprentices get $1 below scale.

Inside salesmen, regardless of how they may be compensated, are subject to the maximum-hour limitations of the code. Outside salesmen can work unrestricted hours if they fall within the code's definition of an outside salesman, which is to the effect that a man must devote *not less* than 60 per cent of his working hours to outside sales work.

NOISE ELIMINATION TOPIC FOR NEXT A.S.R.E. MEETING

DETROIT—How noise in electric refrigerators is measured, located, and reduced will be brought out at an open meeting of the Detroit section, American Society of Refrigerating Engineers, next Monday night.

Main speaker will be Dr. Floyd A. Firestone, professor of physics at the University of Michigan, who will talk on "Diagnosis in the Reduction of Refrigerator Noises."

Dr. Firestone and Dr. Ernest J. Abbott, research physicist of the university's department of engineering research, will demonstrate experimental apparatus which has been used in the university's study of refrigerator noises.

J. H. Bracken, industrial manager of the Celotex Co., will discuss sound-absorbing materials for refrigeration, according to John Wyllie, chairman of the program committee.

The affair is to be a dinner meeting, starting at 6:15 p. m. Monday night, Nov. 20, in the large banquet hall of the Statler hotel. Dinner reservations should be made with John T. Schaefer, engineering editor of ELECTRIC REFRIGERATION NEWS, telephone Columbia 4242.

BY GEORGE F. TAUBENECK - - -

Sleepless Nights

PAUL JONES, advertising and sales promotion manager of Servel Sales, Inc., says he can't go to sleep so long as anyone else is up and awake around the house. That's a failing of ours, too. Always hate to go to bed for fear we'll miss something.

Imagine our state of exhaustion, then, at the close of the four-day Norge convention in Detroit last week. Of all the groups we know, Norge has the greatest collection of late-stayer-uppers, and outlasting that gang was a task worthy of the most intrepid of insomniacs.

Of JOHNNY KNAPP and his proclivity for talking refrigeration into the dawn's early light we have previously written. The same goes for R. E. DENSMORE, western manager, C. D. DONAVEN, general manager and treasurer, W. C. ROWLES, district representative, and JOHNNY DRAKE, chief statistician.

But we didn't know that GEORGE BORG, chairman of the board of Borg-Warner, had such contempt for that human panacea known as sleep, or that so dignified and immaculate a personnage as GLEN O'HARRA, eastern manager (and our idea of the perfect gentleman) could rest so little and yet maintain his fit and well-groomed appearance.

We were up one night until about 3 o'clock talking with such well-informed individuals as JOHN MORGAN, secretary and sales manager of the Charleston (West Virginia) Electrical Supply Co., HAROLD ESKILDSEN of the Seattle distributorship, ELLIS CHANEY of San Antonio, FRENCH NESTOR of Jacksonville, Fla., IRA REINDEL of Detroit, JOHN BEUKEMA of Muskegon, and many others. And then, just when things were beginning to quiet down, along came GEORGE LEHLEITNER of New Orleans.

* * *

George Lehleitner—And Others

Now George Lehleitner, to continue our story, is an up-and-coming young man who has a lot of ideas on promotion. He was fuller than usual of ideas this trip, because he has a busted foot, and has had to spend the last few weeks in a chair—hobbling around on crutches whenever locomotion becomes absolutely necessary.

George has a most engaging southern drawl, an infinitely charming manner of telling original anecdotes to illustrate his theses, and a personality which would have made him a New York mayor in the good old days B. S. (Before Seabury). Before we knew it the hour was 6 a. m.

Walking into the Detroit-Leland coffee shop for breakfast, we found no less than seven Norge men still up and going strong, including FRANK HUGHES of the New York City Norge operation. At 7 a. m. they were still there.

Frank, if you will allow us to digress for a moment, is the living spit'n' image of FRANKLIN D. ROOSEVELT—even up to and including the smile. Note Mr. Hughes's picture at the bottom of this page.

After three nights of this sort of thing, your correspondent was ready for the boys to back up the wagon and cart him away.

* * *

Five Hundred Bucks, At Two-to-One

The picture of Mr. Hughes, referred to above, is one of several pictures we took at this now-historical Norge convention. For the comparative dimness of some of these pictures, reproduced in the panel at the bottom of the page, we apologize. And thereby hangs a tale.

At the banquet Wednesday evening we upped and made a little speech. Major HOWARD BLOOD, president of Norge and first vice president of Borg-Warner, introduced us. In so doing he pointed out that both of us have red hair and that we both enjoy playing with cameras.

And publicly he offered to bet right then and there no less a sum than $500 that *none* of the pictures we had been snapping during the serving of the banquet would "turn out." Furthermore, he made the odds 2 to 1.

Five hundred smackers is a flock of money. Moreover, we felt none too confident that we *would* get any pictures. The big room, you see, was illuminated by small electric bulbs painted brown, and the air was as smoky as an all-night poker session.

Being a Norge meeting, we couldn't very well take in any of the new General Electric floodlamps or flashlamps.

But we did get about 30 recognizable pictures—all a bit dim—a few of which we are reproducing at the bottom of the page. What about it? Do you think we would have won the half grand?

* * *

Old Timers

Two of the fine old figures of the industry, ED HUGHES and L. S. KEILHOLZ, were among the Norge men with whom we talked during those long nights after the formal meetings were over.

Mr. Keilholz used to be chief engineer of Frigidaire. Then he went to Montgomery Ward to head up a product development department. Now he's with Norge, working on air conditioning. First Norge air-conditioning product is the Aerolator, previously announced in ELECTRIC REFRIGERATION NEWS.

Mr. Hughes was for a long time vice president in charge of engineering at Copeland, but now is engineering commercial refrigeration products for Norge—which has just entered that branch of the industry. Few men of our acquaintance have so many friends in the engineering fraternity as the genial Ed.

HERB MORLEY, the Muskegon plant manager who always looks and talks like a member of the English peerage, was there, and so were suave HARRY SPENCER, national service manager, HERB MILLS, stove engineer, and a line of other engineers.

* * *

Broilator Cooking

That Norge Broilator, by the way, puts out a tasty sandwich. We had several encores on the steak sandwiches cooked on a Broilator there in a Detroit-Leland room and available for free consumption, and we worked on some ham-and-egg combinations, too.

Frankly, if we know of a restaurant that had one of these simple new stoves, we'd patronize it regularly.

Secretary HARRY WHITTINGHAM, we noticed, ate plenty of Broilator after-dinner snacks, as did President HOWARD BLOOD himself. Major Blood took a Broilator home for experimental purposes, and now his wife won't let him take it back.

* * *

Money Jingling

Norge distributors had a good season this year. Several of them made a good deal of money. There were some heavy coins jingling in their jeans when they reached Detroit, and they couldn't make a secret of the fact that they felt pretty good.

Many of them would have liked to appear lugubrious and shed some copious alligator tears on JOHNNY KNAPP'S broad shoulders in hopes of getting better discounts. But somehow they just couldn't keep the smiles off their faces. It was one of the best-natured conventions we've ever attended.

DAVE TRILLING paid a mighty fine tribute to Norge management in an impromptu and unscheduled speech at the banquet Wednesday evening; and Dave should know what he is talking about, because he is one of the keenest appliance distributors in Philadelphia—which, as everybody knows, has one of the most outstanding collection of refrigeration distributors of any city in the nation.

JACK WADDELL of Boston seemed prosperous, as did his buddy, B. H. SPINNEY of Springfield, Mass. Mr. Waddell's promotion manager, TREFF MALONEY, is a thoughtful, sober fellow who has some plans for making the Boston distributorship not only profitable, but a volume leader.

Gentlemanly LUDWIG HOMMEL of Pittsburgh, JOE SUOR and DAN MOSER of Kansas City, clownish NED VESTAL of Minneapolis, the CROW brothers and A. H. BOTTENFIELD of St. Louis, PETE SAMPSON of Chicago all displayed evidence of having money to spend. Must be nice.

And speaking of money bags, there were some boys there from Milwaukee who haven't done badly with Norge. They were the Cramer-Krasselt advertising agency, there almost *en masse*, and they've all lived well as a result of having the Norge account.

F. G. CRAMER and W. G. KRASSELT, the head men, were there in person. So was Vice President A. W. SEILER, whose merchandising counsel has been so helpful to Norge executives, and whose experience with the Maytag washing machine account should be valuable to DAYTON YOUNG, new sales manager for Norge washing machines.

COREY FAUDE, HARRY TERRY, G. E. STEDMAN, and other C-K men were very much in evidence at the meetings.

* * *

Jamerson's New Job

An old friend of ours has a new job. He is H.C. JAMERSON, formerly of Frigidaire. We haven't seen him for a long time, but he's moved to Detroit to take a position as advertising and sales promotion manager of De Soto Motor Corp.

Mr. Jamerson began working with Frigidaire in 1923, when he was made sales manager of the Domestic Electric Co., then the Frigidaire distributor in New York City. He stayed with that organization for five years.

In 1929, Frigidaire brought him to Dayton as assistant to J. A. HARLAN, who was then the company's sales manager. When Mr. Harlan became a vice president of Frigidaire, Mr. Jamerson was appointed household sales manager.

His next move was to the managership of Frigidaire's Los Angeles branch, and he then joined the Aeolian Co. in New York City to open and manage that concern's refrigeration (Frigidaire) department. That position he held until he resigned on Oct. 15 to join De Soto.

Who Wouldn't?

* * *

How'd you like to have a personal secretary like the lovely maiden pictured above? Heh. We thought so. Her name is BETTY FOWLER, and she is secretary to O. M. JACKSON, commercial manager of the Georgia Power Co.

Being the high-powered merchandiser that he is, Mr. Jackson has an eye for showmanship. In presenting a fall electric range sales program to his organization, Mr. Jackson developed a series of skits to illustrate each point in his selling plan. He had no programs, however. Instead of programs, the gathering saw Miss Fowler.

Before each skit Betty walked on the stage in the "costume" pictured above, with the subject of the next skit entitled on the round card which she held before her.

The words "Look Twice," which appear on the card above, comprise the slogan for the Hotpoint fall campaign. It wasn't difficult to look twice at Miss Fowler, and everybody present got the slogan pretty firmly in mind.

RALPH GATES, assistant sales promotion and advertising manager of the Edison General Electric Appliance Co., is authority for the statement that Miss Fowler wore a bathing suit behind the card. Those present at the meeting didn't know that, however, and nobody left early or walked out for a smoke.

'It Can't Start Too Soon'

Phillips Lord (center), known as Seth Parker to radio listeners, tells E. B. Newill (left) and H. W. Newell, Frigidaire vice presidents, about plans for his "voyage to everywhere." Frigidaire will sponsor weekly broadcasts from the schooner until it leaves American waters.

Mr. Ruthenburg In Time

Tennessee Valley Authority caused some concern in utility ranks when it announced in September that it plans to retail Muscle Shoals power at the unusually low average rate of 2 cents per kwh., claiming that this charge is sufficient to cover all regular items of taxation, interest, depreciation, etc., which the private-owned utility must consider.

Reporting this move in its Sept. 25 issue, *Time* magazine outlined a breakdown of the 2-cent rate. First 50 kwh. will retail at 3 cents per kwh., which will pay for lights and small appliances in the home.

"The next 150 kwh.," continues the article, "at 2 cents per kwh. ($3) . . . will keep an electric refrigerator going for 30 days."

A 1-cent per kwh. rate will hold for the next 200 kwh. (operating a range and hot water heater), while all power in excess of 400 kwh. is to sell at 2/5-cent per kwh.

Having spotted the quoted paragraphs, LOUIS RUTHENBURG, consultant for the Refrigeration Division of the National Electrical Manufacturers Association, rushed to the defense of the electric refrigerator in the following letter, printed in the Oct. 23 number of *Time*.

"Sirs,

"*Time*, Sept. 25, p. 13, presents interesting data concerning domestic power consumption and costs.

"Certainly 150 kilowatt hours is greatly above monthly current consumption of the average electric refrigerator. Edison Electric Institute estimates that the average electric refrigerator requires 600 kilowatt hours per year, or 50 kilowatt hours per month. Cost of operation in second bracket, T.V.A. rate structure—$1.00—not $3.00 . . .

"As a very broad generality, it usually is safe to figure that the average refrigerator will require kilowatt hours about equal to the average lighting load in the average American home.

"By offering this correction, refrigerator manufacturers indicate their knowledge that *Time's* readers are many, thoughtful, great in their influence of public opinion."

LOUIS RUTHENBURG,
Consultant.
Refrigeration Division
National Electrical Manufacturers Association, Detroit, Mich.

Seen Much and Often as Norgemen Worked and Banqueted

Vice President Knapp swaps yarns in the crowded "recreation room."

Major Blood and C. D. Donaven in the Detroit-Leland's big banquet hall.

Norge's inseparables—Betty Appel, economist, Vera Wooley, secretary.

Double for Roosevelt is Frank Hughes, Norge's New York office.

Assistant Editor Redeker works on the Norge convention issue.

Out of the huddle
. . . came ANOTHER TOUCHDOWN!

A Christmas Campaign that Scores Again for Kelvinator

IT HAD to be good. It had to be different. It had to be a plan that would sell Kelvinators and help Kelvinator representatives make Christmas 1933 the biggest and most profitable Christmas business in their history.

Into a huddle went the Sales Promotion and the Advertising Departments. And out of the huddle came another TOUCHDOWN—the finest, most comprehensive merchandising plan we have ever developed to help Kelvinator representatives sell Kelvinators for Christmas.

Of course, we can't tell you about it here. There isn't space enough. However, we do want to tell you this—the plan is going to make Christmas 1933 another "Merry Christmas" for Kelvinator dealers, distributors and salesmen. . . . KELVINATOR CORPORATION, *14250 Plymouth Road, Detroit, Mich. Factories also in London, Ontario, and London, England.*

NRA MEMBER U.S. WE DO OUR PART

Kelvinator

(765)

HOME SERVICE

By Jean M. Kerr

Range Skit

"Dear Bill:" read the note, "Mother dropped in this afternoon and invited me to go to the movies with her. Afterwards we are going to my favorite restaurant, the Open Door. But I didn't forget you. The roast is in the refrigerator, all ready to go into the oven. The potatoes are in the refrigerator too, and the apples for the applesauce. All you'll have to do is get them ready and cook them. Sorry I didn't have time to do it myself, but I think it was so sweet of mother to ask me to go out with her. Love, Minnie."

This was the opening volley in one of two skits featuring the dual-automatic electric range put on for Detroit dealers last week by Westinghouse Electric & Mfg. Co. range department representatives from Mansfield, Ohio.

Actors and co-authors of this "New Deal for Housewives" were JAMES WASHBURN (Bill Fumes), range specialist, and RUTH McMANUS (Mrs. Watts), range home economist. Scene: two kitchens in houses so close together that members of the households could talk to each other through the open windows.

The unfortunate Mr. Fumes walked into his kitchen after a hard day at the office, to discover that Minnie (his wife) was out and no dinner was ready. Finding the above note, he vented his disgust in terms which convulsed the listening dealers. Then, with typical masculine assurance, he set about making his own dinner.

Around this always-humorous situation was built the skit—but clever lines and natural remarks made it into one of the most amusing playlets we've seen in a long time. The plot was thickened when Mr. Fumes discovered he must prepare his dinner on an electric range which had been installed only three days.

"Now, there's that electric stove I've just made the down payment on," he exclaimed with a snort. "You'd think, if she was so anxious to have it she'd at least stay home and cook on it. It looks pretty, but it probably won't work. Wonder if she asked if it works."

The struggling young husband carried the audience on to new laughs with his efforts to get into a dainty apron ("I feel like a bartender in church, with this on"), his annoyance at finding the roast still wrapped in the paper it came home in ("and she said it was ready!"), his attempt to light the range oven with a match, and other similar mistakes.

Every time he touched the stove he did the wrong thing—taking out the heat shield used to cover the bottom unit in the oven, setting the temperature control too high, covering the meat, etc.

Having put the roast into the oven for better or worse, Mr. Fumes next tackled the potatoes. Remarking that it was a good thing he knew how to peel them, he proceeded to cut away 50 per cent of each potato in his determined jabs at them.

"Looks like I handle these the way the boss handles my salary," he complained.

At about this point, the lady next door, Mrs. Watts, strolled into her kitchen. She was late from the bridge party, and hastened to put a dish of applesauce on *her* Westinghouse range, with the burner turned to low heat. Apparently this was all the preparation she intended to make for dinner.

Glancing out the window, she saw the struggling semi-batchelor in the next house. From then on she tried to offer helpful comments, succeeding mostly in annoying the flustered Mr. Fumes, who was embarrassed by his apron, irked by his mistakes, and serene in his confidence in himself as a cook.

"How do you like your electric range, Mr. Fumes?"

"I don't. I like to see a flame when I cook."

"You won't really appreciate that oven until you broil a steak in it. You ought to try it sometime."

"Maybe I will sometime, when I'm *alone*."

With more cheery advice, Mrs. Watts finally turned back to her own kitchen, commenting on how cross Mr. Fumes was, and what a life his wife must be leading.

Mr. Fumes' comments were more explosive, revolving around the idea that "I believe she's trying to make me. Wouldn't be surprised—with this apron on I look like a gigolo."

High point of the skit came when Mr. Fumes tried to make tapioca pudding—by his own recipe—with Mrs. Watts looking on. Pouring out two cups of milk, he let them overflow into the bowl—then seeing only a little milk left in the bottle, poured it all in. The recipe, he maintained, didn't call for enough tapioca, so he rectified the deficiency by more than doubling the amount. Salt was measured with a tablespoon instead of a teaspoon.

After destroying one egg in his effort to separate the "yellow from the yolk," the man finally got the white of the egg (yolk, to him) into the concoction, and wiped his hands carefully on the curtain at the window.

All this time Mrs. Watts had been seeking to convince him of the merits of the range, and although he wavered and followed some of her instructions, he finally burst out with:

"I don't think those things are cooking. This range isn't as fast as the old one. Why, look, I can put my hand on top of this oven and it isn't even hot yet. With our old stove the whole kitchen would be hot by this time!"

Finally, after Mr. Fumes had spoiled most of the food he was trying to cook, Mrs. Watts suggested he come over and eat with her since her husband had been detained.

"Oh, no," said the chef, "I'm hungry. All you've got on your stove is applesauce."

He was much surprised to learn that a complete oven meal had just finished cooking. It had been left in the oven, with timer set, when Mrs. Watts went out to play bridge.

Curtain went down on a contented Mr. Fumes just about to eat a good dinner and thoroughly sold on the electric range, and a glowing Mrs. Watts who thought it might be nice to have "something cool to drink before sitting down."

• • •

Introducing the Council

Not that this was all of the meeting. It was one of two skits, as we've said before, and decidedly the more unusual of the two.

P. E. RINEHART, merchandise manager with Westinghouse Electric Supply Co. in Detroit, opened the meeting, which was planned for the purpose of interesting local dealers in electric ranges generally and in Westinghouse ranges particularly.

"We are going to tell you something about electric cookery," he pointed out, "but it will not be a cut-and-dried cooking demonstration such as you've seen before. It is intended to show you what is going on inside the average home, rather than what is demonstrated on the sales floor."

Five minutes was then given to AUGUSTUS JAEGER, representative from the National Electric Cookery Council. Stating that the range is the next profit producer and big seller in the industry, Mr. Jaeger urged dealers to cash in on the opportunity to sell ranges, and discussed functions of the council.

Over a million electric ranges, he said, are in use at present, and communities throughout the country now support 170 cookery councils.

Characters taking part in the skits were next introduced, consisting of the talented Mr. Washburn, whose voice, mellowed in Alabama, panicked the women in the audience; the charming Miss McManus, who made the men wish their wives could cook and look like that; and obliging RAY SNYDER, who gave an impromptu performance as sales manager in the first act.

Process of converting a gas-range prospect into an electric-range prospect by means of an interesting cooking demonstration was the subject of the opening skit. Mr. Washburn, as the salesman, demonstrated everything to Miss McManus, the prospect, from the baking of biscuits to a cut-away model of the time-temperature dual-automatic control.

Needless to say, the prospect was sold.

• • •

Cost Data

Cost comparisons were charted in this act, somewhat as follows:

Cigarettes, it was estimated, cost the average individual $3 to $5 a month, whereas electric cooking costs from $2.40 to $3.60 a month.

"If there are two smokers in each family," stated Mr. Washburn, "the amount for smoking would be doubled. Wouldn't you pay the two or three dollars for a necessity, if you'll pay three to ten dollars for a luxury?"

He next showed a chart which read, "It costs less to light a cigarette with an electric range unit than with one match from a 1-cent box." (He hastened to explain however, that it would not be wise to light a cigarette from a burner!)

Final chart compared costs of electric and gas cooking, figured on the basis of weekly cost of gas and electricity (determined by dividing monthly bills by four); food loss from shrinkage (estimated to be 20 to 30 per cent in gas cooking, therefore representing about one-quarter of the purchase price); cost of redecorating due to darkened walls, food stains, etc.; and time spent in the kitchen and in cleaning.

In explaining this last point, Mr. Washburn emphasized the time-temperature control on the Westinghouse dual-automatic range which enables the housewive to cook her meals without being present, and the ease with which rounded corners in the oven can be cleaned.

Results were as follows:

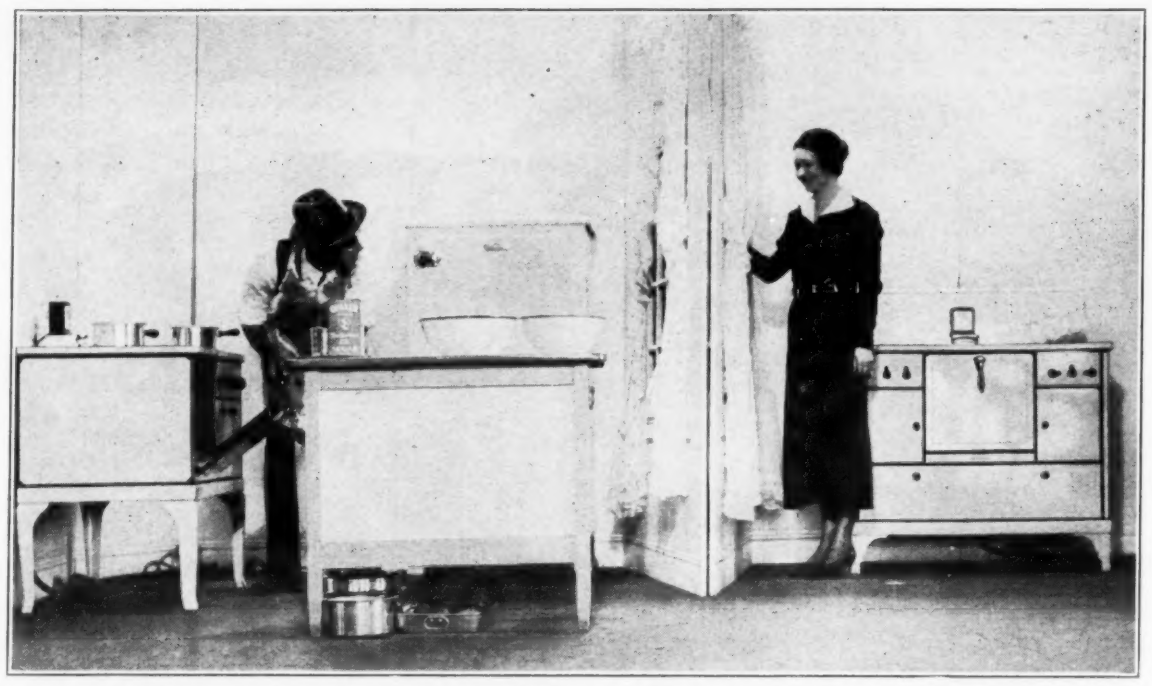
	Weekly Cost of Gas	Electricity
Weekly bill	$ .51	$ .68
Loss from shrinkage	.58	.12
Cost of redecorating	.25	.13
Time and cleaning	2.80	1.40
Total	$4.04	$2.33

Electric cookery would effect a saving over gas, according to Mr. Washburn, of $1.71 weekly, or $6.84 per month.

This act served to acquaint the audience with the advantages and use of electric cookery, so that they were prepared for the humorous "New Deal for the Housewife."

Although this latter was last on the program, it was so outstanding we put the cart before the horse and described it first.

A Husband in Distress



"So she thinks I can't cook; I'll show her!" is probably the thought Bill Fumes (James Washburn) is glaring at Mrs. Watts (Ruth McManus) in the Westinghouse range skit, "New Deal for Housewives."

DETROIT EDISON TO AID ELECTRIC RANGE DRIVE

DETROIT, Nov. 13.—The Detroit Edison Co. will give dealers a $10 "load-building commission" for each electric range sold in addition to installing the range free of charge, it was announced by W. Mathews of the utility company at a meeting of the Eastern Michigan Electric Cookery Council held today in the Book-Cadillac hotel.

Approximately 50 dealers, distributors, and manufacturers' representatives attended the meeting which was called by Syd Caswell, Detroit distributor for General Electric appliances and chairman of the council, for the purpose of making plans for Electric Cookery Week in Detroit, which will be celebrated starting next Monday, Nov. 20.

The Detroit Edison Co. will also send out cooking demonstrators to visit new users and will handle the servicing of electric ranges, charging only for parts.

Plans for the Detroit electric cookery week include newspaper advertising, in which the names of dealers selling electric ranges will be placed in the copy, and two daily radio broadcasts over radio station WWJ dealing with the subject of electric cookery.

Pierre Miles, sales manager for Hotpoint electric ranges, addressed the dealers on range selling methods, and A. G. Jaeger, district representative for the National Electric Cookery Council, also addressed the dealers.

BETTY APPEL HEADS NEW NORGE DEPARTMENT

DETROIT—Heading the new home service department of Norge Corp. is Miss Betty Appel, blonde young home economist.

Miss Appel was introduced to Norge distributors at the company's fifth annual convention here last week.

ELECTRIC REFRIGERATION NEWS
Registered U. S. Patent Office

The Newspaper of the Industry — Written to Be Read on Arrival

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EDITORIAL AIMS

To encourage the development of the art.
To promote ethical practices in the business.
To foster friendly relations throughout the industry.
To provide a clearing house for new methods and ideas.
To broadcast the technical, commercial, and personal news of the field.

VOL. 10, NO. 11, SERIAL NO. 243, NOV. 15, 1933

A Way to Help Your Commercial Salesmen

SALES of commercial refrigerating units have lagged this year while household refrigerator sales have soared toward a record high. Many reasons may be offered to explain the slow movement of commercial equipment. One good reason well worth considering is that the commercial refrigeration salesman's job has become increasingly difficult.

The commercial salesman's problem is highly complicated compared with that of the household salesman. The household salesman has no great difficulty in comprehending the problems of the householder. He is familiar with the atmosphere of the home and the kitchen and can understand the interests of his prospect.

The commercial refrigeration salesman, however, does not approach the varied markets which present themselves in his field with the same assurance that he will be on familiar ground. The chances are that he has had little if any previous association with the operation of the kind of business in which his prospect is engaged.

Also, sales promotion literature on commercial refrigeration equipment is far less adequate than the selling helps which are supplied to the household refrigerator salesman. The best advertising brains that money could buy have been trained on the housewife, but the commercial prospect has not received so much attention.

The sales presentation on household refrigerators was put into a workable formula that has brought results for a number of years, but the same cannot be said of the commercial field.

Viewing the situation from the other side of the counter, the prospective buyer has had little opportunity of obtaining a broad view of store modernization through new refrigerating equipment. As a general rule he doesn't know as much about his competitor's new refrigerator as his wife knows about her neighbor's new kitchen equipment. If he is located in a small town, he may know what others in the same town are doing. If his place of business is in a large city, he may be familiar with the type of store operated by his neighborhood competitors. But he has neither the time nor the inclination to inspect the type of improved retailing operation that is carried on in another section or in other cities.

During the first few years in the sales history of the low-pressure commercial condensing unit, when the cream of the market was being skimmed off, the stock story of how electric refrigeration would cut costs was about all that was needed.

But as times grew harder, and high-grade prospects less plentiful, the salesman began to discover that he needed a more complete understanding of food merchandising. It became apparent that he must be able to show the merchant how to increase his volume of business as well as reduce his overhead.

In the early days the commercial salesman was simply selling against ice—his principal idea being to sell a machine or a complete unit to replace the old ice box. Today the problem is chiefly one of selling *adequate* refrigeration to meet the merchandising needs of the prospect.

Ideas as to what constitutes adequate refrigeration for various types of food merchandising operations is constantly changing, and the seller must keep in touch with all the latest developments in order to meet the problem in an intelligent manner. He has no exact pattern to follow as has the household refrigerator salesman, who has only to learn the size of the prospect's family in order to prescribe a unit of proper size.

Thus the commercial refrigeration salesman needs a source of news and ideas drawn from a wide field of experience. He needs a wealth of material in story and picture to show the food merchant what is being done in the modernizing of stores with refrigeration equipment.

In September, 1931, we introduced a new monthly publication, REFRIGERATED FOOD NEWS, which was designed primarily to educate the food retailer to the advantages of adequate electric refrigeration, and also to interpret the food retailing field to the salesman.

REFRIGERATED FOOD NEWS is entirely different in scope from ELECTRIC REFRIGERATION NEWS, which is the weekly newspaper of the industry. The monthly paper has a function as a sales promotion medium aimed at the prospective purchaser of commercial electric refrigeration. It is a "propaganda sheet" in the better sense of that term for the purpose of educating the prospect to the advantages of modern equipment.

REFRIGERATED FOOD NEWS is edited from the viewpoint of the *user* and *prospect* for commercial refrigeration. It is designed to interest him in modernization with new refrigeration equipment by discussing it from his side of the counter. It is this fact that enhances the publication's value to the commercial salesman—because it gives him a picture of what the prospect wants and needs.

Our subscription records indicate that a large number of commercial refrigeration men have recognized the value of REFRIGERATED FOOD NEWS but it is also evident that many are not making use of this helpful service. The same records also show that many large scale users of commercial refrigeration, such as the buying headquarters of meat and grocery chain stores, food packers and wholesalers, etc., are highly appreciative of REFRIGERATED FOOD NEWS.

There are, however, thousands of smaller food dealers, independent operators who wait for the salesmen to bring them the story of better methods. It is scarcely reasonable to expect any great number of these prospects to become regular paid subscribers to a publication of such specialized character. It should be placed in the hands of such prospects by someone who is interested in their education.

The commercial refrigeration salesman is obviously the one who knows where to find the prospect and the one who is most interested in getting the message of modern merchandising methods to that prospect. By the simple act of entering an order for a subscription to REFRIGERATED FOOD NEWS for the prospect, the salesman is assured that a 12-time barrage of interesting and informative sales literature will be delivered.

The cost of such a campaign is much less than any other program which could be devised. Because of the independent nature of the editorial material it is sure to be much more convincing than ordinary advertising literature.

Thus the commercial salesmen has an opportunity to direct an educational campaign to a selected list of his own prospects and pave the way for his sales effort on behalf of one or more particular brands of equipment. REFRIGERATED FOOD NEWS is available as a medium for developing the commercial refrigeration market. Reduced rates are offered for group subscriptions—a ready-made campaign suitable for any commercial refrigeration dealer in any locality.

LETTERS

Arkwright on Range Revenue

Georgia Power Co.
Electric Building, Atlanta
Nov. 2, 1933.

Editor:

I send you enclosed copy of a letter which I have written to Mr. Julien Elfenbein, editor, *House Furnishing Review*, with regard to a statement attributed to me in the report published in your issue of Oct. 25 of the remarks of Mr. Elfenbein at the round table discussion for department store appliance merchandise managers, held Oct. 17 and 18 in Cleveland. I would greatly appreciate it if you would publish a correction.

I did not make such a statement as is attributed to me, and it places me in an extremely embarrassing position because everyone in the electric light and power industry knows that such a statement would not be justified, no matter who made it.

P. S. ARKWRIGHT,
President.

Georgia Power Co.
Electric Building, Atlanta
Nov. 2, 1933.

Mr. Julien Elfenbein,
c/o House Furnishing Review,
1170 Broadway, New York.

Dear Mr. Elfenbein:

I have been informed that the ELECTRIC REFRIGERATION NEWS of Oct. 25 carried the story of a round table discussion of department store appliance merchandise managers, held Oct. 17 and 18 in Cleveland; that in referring to the talk made by you, it quotes you as follows:

"Preston Arkwright, chairman of the Electric Cookery Council, says that the average home without an electric range, for instance, consumes 500 kwh. annually, at 6 cents per kwh. that is about $30 per year. The average home with an electric range, says Arkwright, consumes 2,200 kwh. at 6 cents per kwh., that would be $135—$100 more in electric power for one consumer by the sale of one appliance.

"This is what has inspired utilities in various sections of the country to rent electric ranges at 30 cents per month. I would think that if utilities could triple their load, it would be to their interest to give Mrs. Consumer promotional rates, the same as they give the large private users of electrical energy."

Surely there must be some error in reporting your remarks. I never made any such statement as is attributed to me. The only statements that I made concerning the revenue from an electric range was that it would add on the average approximately $50 a year revenue. Nobody in the electric light and power business, so far as I know, receives or expects to receive 6 cents per kwh. for electric current used for cooking purposes. It is thoroughly well understood that a lower rate than this is necessary, and in all cases where the sale of electric ranges is promoted, the companies do have special cooking rates or a form of promotion rate which brings the charge per kwh. for cooking purposes down to a very low figure.

I principally would like to have you correct the reference to me, for certainly I never made such a statement, and couldn't possibly make such a statement, for it is not justified.

Attributing the statement to me, I am sure, must have been an error by the reporter. However, in justice to me I would greatly appreciate it if you would make a correction of it in the ELECTRIC REFRIGERATION NEWS and such other publications as may have carried the story.

P. S. ARKWRIGHT,
President.

FRIGIDAIRE SPONSORS SETH PARKER VOYAGE

(Concluded from Page 1, Column 2)

early weeks of the cruise are Providence, R. I.; New Haven, Conn.; and New York City. From New York south, stops are planned, weather and tide conditions permitting, at major ports, and at each point, local Frigidaire organizations will be active in ceremonies incident to the visit of the *Seth Parker*.

Frigidaire's advertising and sales promotion departments are tying in the national sales organization with the cruise programs.

REINDEL TO SET UP NORGE OUTLET IN ENGLAND

DETROIT—I. H. Reindel, Norge Corp.'s director of engineering, will sail for England Nov. 17 on the *S.S. Paris*, to make arrangements for marketing Norge products in that country. While in England, he will work with Roy W. Gifford, assistant to the president of Borg-Warner Corp.

LILIENTHAL URGES APPLIANCE PROGRAM

(Concluded from Page 1, Column 3)

principal item of cost in getting these appliances into the homes and on the farms has not been the cost of materials and labor in their construction, but the cost of financing and selling.

"The 200-odd electric manufacturers of the country," Mr. Lilienthal continued, "are equipped today to turn out the hundreds of thousands of heavy-use electrical appliances which the people of the country want and which, under a carefully planned program, they can pay for.

"In fact, with proper rates, the bulk of our people literally cannot afford not to own and use such appliances. But low rates alone are not enough. Without large-scale distribution of low-cost appliances, there will never be a widespread use of electricity.

"I am calling this matter of electrical appliances to your attention because it should be an integral part of this national program. Anyone who leaves this factor out of consideration is not thinking this matter through.

"While I am not at liberty to discuss the matter at this time, I would be less frank than I have a right to be if I did not say that a definite plan for this phase of the program is approaching completion, with the cooperation of many interests."

Mr. Lilienthal declared that the use of electricity has fallen behind the installation of power-generating facilities, and then referred to the additional facilities now being brought into existence at Muscle Shoals and Cove Creek in the Tennessee Valley, at Boulder Dam in the Southwest, at Grand Coulee on the Columbia River in the Northwest, and the proposed development on the St. Lawrence River in the Northeast.

Low rates alone will not provide for the necessary increased use of power, said Mr. Lilienthal, who proposed a five-point program setting forth his conception of "the underlying principles which should govern the labors of the Tennessee Valley Authority and all the other agencies whose cooperation is needed in accomplishing the electrification of America."

The five points of this plan are:

"1. We must begin thinking in terms of an electrified America, and cast aside the tradition which is binding us to our present niggardly use of electricity.

"2. Our entire electric rate structure must be re-examined and drastically revised.

"3. Electric-using appliances must be put into the homes and on the farms on a scale heretofore not successfully attempted.

"4. All the forces of business, scientific and engineering ingenuity and technique must be concentrated upon the problem of reducing certain of the costs of operation.

"5. The people of the country must be brought to realize that there is a pool of electricity lying idle, ready and waiting to be used, and to realize what electricity can do in lightening their burdens, in increasing their incomes, and making for a richer and better life."

HEARINGS ARE FINISHED ON COMMERCIAL CODE

(Concluded from Page 1, Column 4)

Cincinnati, was appointed industrial advisor for the hearings. P. H. Sullivan, associated with Mr. McClure, made the presentation of the code. Other prominent figures in the industry who were present included V. P. Warren of the Warren Co., Atlanta, and C. M. Garland of the Garland Refrigerator Co., New York, who represented New York manufacturers.

One of the most important trade practice provisions of the code is that which declares that no instalment sale shall be made which provides less than 10 per cent of the net sales price in cash accompanying order, and which provides a total of less than 20 per cent to be paid prior to delivery to the customer.

The balance must be paid within 24 months and no monthly instalment can be less than $15. All down payments are to be based on the net delivered price, after deduction of credit for any trade-in made.

Sale of products at less than actual cost is deemed an unfair trade practice. The resale of refrigerating units, which are products of other industries, to a commercial refrigerator customer without the addition to cost of a reasonable amount to cover handling, transportation, and other costs, is declared to be an unfair trade practice.

All quotations up to and including $2,500 on special commercial refrigerators shall be priced at not less than the estimated factory cost (materials, labor, and factory burden) plus the regular percentage of general overhead, plus the regular percentage of profit, plus the same percentage of commission or discount as is regularly paid on similar types of standard models to similar purchasers.

Norge Delegates Preview Aerolator, New Washing Machine Line

(Concluded from Page 1, Column 1)

same as when the conditioner was introduced early this year, but the cabinet has been restyled to give it the same lines as those of the Norge refrigerator, though on a smaller scale.

The Aerolator, wyith its grilles at the top, has a shaded pole-type motor mounted between two fan housings. The fan wheels are made of aluminum, and each weighs ½ lb. Motor speed is regulated by a knob on the side of the cabinet.

Passage of Air

Air enters the conditioner at the bottom of the inlet box, located in the lower part of the cabinet. It first passes through a 40-mesh filter screen which removes large dirt particles. Next, it is forced through a spray chamber, then through a moisture eliminator which removes excess moisture.

To reduce noise, the air is next forced through a mass of passageways in the unit's hood, where sound-absorbing material takes up much of the air noise. Attachment of the conditioner to an indirect heater on a boiler serves to heat water used in the unit.

Motor in the conditioner is a 35-watt unit, Mr. Keilholz said, and the spray in the device uses nine gals. of water per hour. There is a pressure-reducing valve in the conditioner which keeps all spray water at a 12-lb. pressure.

Tour of Rollator Plant

Afternoon of the second day was spent by the distributors in touring the Norge rollator plant, and the following morning (Wednesday) they assembled at the Players Club for their final conference session.

Presentation of the new Norge washers came first on the program. In 1934, there will be three models in the line. This year, Norge has manufactured only one washer model, the Economaid, but next year that model —somewhat redesigned—will be sold as the standard and lowest-priced unit in the line.

Changes in Washer

The 1934 Economaid model will have a larger tub and a longer skirt than the '33 model, but will have the same overall appearance as this year's unit. It will retail for approximately $60, according to Mr. Knapp.

Two higher-priced Norge washers have the same mechanism as the Economaid, but are much different in appearance. Set on low black bases patterned somewhat after that of the 1934 Norge refrigerator, these models have circular white tubs with white skirts continuing down to the base. Drains are concealed behind a small panel set flush with the tub exteriors.

On both models, the wringer case is of compact, modernistic design, and conceals the wringer post entirely. To as great an extent as possible, these two washers have been styled to bear a marked resemblance to the Norge deluxe refrigerator line.

Prices on Washers

Price of the "standard" model will be about $80, Mr. Knapp estimates, while the deluxe model, having a double-tub feature, will retail for approximately $100. All of the new washers will be placed on the market soon after Jan. 1.

Preceding presentation of the line, Mr. Knapp discussed sales and profit possibilities of the washing machine business.

"With the exception of one year, the washer market has increased over the last five-year period. Today there are 9,000,000 washers in use," he said. "In 1934, there will be 900,000 washers sold for replacement, and at least another 900,000 each year after that time.

"If only one-third of each year's new wired homes were equipped with washing machines, that would make an annual sale of 416,000 units for that division of the market alone. Add the replacement business to the new-wired-homes field, and you have a huge market potential.

Improvements in Market

"Aside from the fact that the washing machine market has *not* reached the saturation point, there are other factors favoring the business," declared Mr. Knapp. "There is no real seasonal curve in the market. Increasing laundry prices are boosting washer sales; so is reemployment. The market is well stabilized."

Distributor-dealer activity in Norge washer selling next year will be backed by a cooperative advertising campaign, plus a sales promotional program. In charge of washer sales next year, under Mr. Knapp's supervision, will be Dayton Young, who is new to the Norge organization.

Next subject taken up at the session was that of finance plans, with Howard E. Blood, Norge president, opening the discussion.

Said Mr. Blood: "This year, the poor financial condition of many dealers has been a great obstacle in the drives of refrigeration manufacturers for new retail outlets.

"Our sales volume is almost exactly proportionate to the number of times people see our products in their own towns and neighborhoods, so we must cover every potential sales center in the United States."

New Credit Plan

To increase its dealer coverage, and to boost size of the average stock purchase by dealers from their distributors, Norge Corp. has arranged with Commercial Credit Co. for a new wholesalers' credit plan which goes into effect immediately.

Details of the plan were presented by Howard Wynegar, president of Commercial Credit Co., who said that every good dealer wanting to handle Norge products will be allowed to purchase his initial stocks, at least, under the new wholesale arrangement.

Christmas Selling

To stimulate refrigerator business during the Christmas season, Norge Corp. has arranged with Commercial Credit for a special payment plan to be used by dealers this year.

Under its terms, dealers may sell refrigerators now for Christmas delivery, secure a $10 down payment, and defer the next payment until March 1, with 24 months after that time in which to collect the remaining payments.

Effect of Code

Mr. Wynegar said, however: "If the household refrigeration manufacturers' code is approved before Christmas, a 10 per cent down payment will be required, with the balance to be paid in 24 months."

Commenting upon the refrigeration business in particular and the country's economic prospects in general, Mr. Wynegar said after his outline of the plans:

"Many good dealers today have no working capital. I believe that from now on, 60 per cent of the country's refrigerator buyers will be found in towns of 15,000 and less.

"One way to overcome price objections from buyers is to teach your dealers and salesmen that when sales are made on an instalment basis, price ceases to become a prime factor.

"I believe 1934 will be a good year—and I'm not generally considered a confirmed optimist. People's feeling of discouragement is gone. They are annoyed and confused by conditions in general, but the real doldrums have passed."

Sales Promotion Work

At odd moments during the meetings, Messrs. Blood and Knapp made a number of short, extemporaneous talks on their organization's problems. Here are some of the most worthwhile:

Mr. Knapp: "We have come to that point in our development where every one of our major distributors can well afford to employ a man to do full-time sales promotion work among his company's dealers, salesmen, and field men."

Mr. Blood: "Manpower is worth almost nothing without knowledge of the product. People's ignorance is the only cause for refrigeration's being a spring-summer business. If the public knew as well as we do that refrigeration is necessary in the winter, there would be no off-season.

"Let's rule out the words, 'off-season.' Let's simply call it a 'tough season,' because it is in our power to remove this sale-slowing ignorance. When you say that winter selling is too expensive, I wonder if that statement is based on experience."

Taubeneck, Blood Speak

High spot of the banquet at the close of the third day's sessions was award of the president's trophy (loving cup) to the Harten-Knodel Distributing Co. of Cincinnati, which firm sold 183 per cent of its 1933 quota during the first 10 months of this year.

George F. Taubeneck, editor of ELECTRIC REFRIGERATION NEWS, and Major Blood were the only speakers at this banquet. Major Blood discussed all-year refrigeration selling, while Mr. Taubeneck talked about factory-distributor morale.

Annual Award

The cup is presented annually by Mr. Blood to that Norge distributorship which has, during the year past, done the "best all-around" job of selling. This is the second successive time that Ray P. Harten and Harry Knodel have carried the huge trophy back to Cincinnati with them.

Entire last day of the convention (Thursday) was given over to individual conferences between distributors and various executives of Norge Corp.

SERVICE

Los Angeles Passes City Ordinance Regulating Service Men

LOS ANGELES—A city ordinance requiring a certificate of registration, payment of a $25 fee, and posting of a $1,000 bond by all companies engaged in installation and service of electric refrigeration equipment has just been passed by the Los Angeles City Council and will become effective Dec. 2.

The new law is designed to eliminate the shoddy work of irresponsible or itinerant service men, and is based on the premise that any company which is established and responsible can afford to pay the fee and post the bond.

Agitation for such an ordinance was started about a year ago when a meeting was called of 20 men representing manufacturers, manufacturers' representatives, distributors, dealers, and service organization. Meeting with them was an official from the Los Angeles Department of Building and Safety.

This group then appointed a committee of five to crystallize the suggestions offered and, with city officials, to draft a tentative ordinance.

Hearings held by Building and Safety Commissioners brought out a number of objections to the license fee and bond. The answer to this objection was that because of the original value of equipment serviced, no service man should be operating as an independent service company unless he has sufficient assets to enable him to stand behind the work.

The license fee had to be placed high enough to enable the licensing department to be self-sustaining, yet it had to be low enough so that if cities surrounding Los Angeles adopted similar ordinances, the fee for service companies operating in these cities would not be prohibitive, according to L. P. Roth of Refrigeration Service, Inc., who was active in formulation of the ordinance.

Explaining the $1,000 bonding provision, Mr. Roth states:

"The terms of the original refrigeration ordinance in Los Angeles required that a permit be taken out for refrigeration equipment installed, moved, or replaced.

"One city in southern California also requires a permit every time the system is opened to perform service work. According to terms of this code, which has been in effect over a year, an inspector is supposed to examine the equipment at the close of each service call, which is practically impossible because of the large number of permits issued.

"It was felt by the committee that requiring a permit every time a service operation was completed would be an unnecessary expense as well as considerable inconvenience if the company does any volume of work.

"Therefore the bond was required to protect the customer in case an installation did not meet the Los Angeles refrigeration ordinance, or terms of the new ordinance licensing contractors."

The new ordinance follows:

Ordinance No. 73,174

An ordinance providing for registration of persons, firms, or corporations engaged in the business of installing, altering, repairing, or servicing refrigeration systems and providing penalty for violation of same.

The People of the City of Los Angeles do ordain as follows:

Sec. 1. Certificate of Registration Required. It shall be unlawful for any person, firm, or corporation to engage in or carry on or to represent or to advertise himself, herself, itself, or themselves as engaged in or carrying on the business of installing, altering, repairing, adding to, or servicing any refrigerating system as defined in Sec. 230 of Ordinance No. 28,700 N. S., until such person, firm, or corporation shall have first registered at the office of the Superintendent of Building of the Department of Building and Safety of the City of Los Angeles, and obtained a Certificate of Registration as a Refrigeration Contractor as hereinafter provided in this ordinance.

For the purpose of this ordinance, the term "Refrigeration Contractor" shall mean any person, firm, or corporation installing, altering, repairing, adding to, or servicing any refrigerating system as defined in Sec. 230 of Ordinance No. 28,700 N. S., provided, however, that the term "Refrigeration Contractor" shall not include any person who personally does such work in a building owned by and also occupied by such person, nor to any person doing such work under the direct supervision and in the employ of a "Refrigeration Contractor."

Sec. 2. Application for Certificate of Registration. Every person, firm, or corporation desiring to be registered and to obtain a Certificate of Registration as a Refrigeration Contractor shall make application in writing to the Superintendent of Building of the Department of Building and Safety of the City of Los Angeles on blanks furnished for that purpose. Every such application shall give the name and address of such person, firm, or corporation, and, if a firm, shall give the names of the members thereof, and, if a corporation, shall give the names of at least three (3) of the principal officers thereof. Every such application shall give such additional information as the Board of Building and Safety Commissioners may consider necessary to carry out the intents and purposes of this ordinance, and such application shall be verified upon oath by such person, or, if a firm, by a member thereof, or, if a corporation, by an officer thereof, as the case may be, or by the duly authorized agent of such person, firm, or corporation.

Every such application shall be accompanied by a bond executed to the City of Los Angeles by a surety company authorized so to do, or by a corporation having the authority to act in such capacity.

In form, said bond must be joint and several and in the sum of One Thousand Dollars ($1,000.00), and said bond must be conditioned that the whole or any part of said One Thousand Dollars ($1,000.00) shall be paid to any person who has suffered damage by reason of the violation of any provision of this ordinance, or by reason of the violation of any of the provisions of Ordinance No. 28,700 N. S., or of any ordinance amendatory thereof or supplementary thereto.

Said bond shall not be void upon the first recovery, but may be sued and recovered upon from time to time by any person who has suffered damages as herein referred to, in his own name until the whole penalty is exhausted.

The sufficiency of the surety company shall be approved by the Department of Building and Safety, and every such bond shall be approved as to form by the City Attorney of the City of Los Angeles.

That the surety company executing such bond shall agree to make any installation or construction work done by said principal comply with the provisions of Ordinance No. 28,700 N. S. and with the provisions of any ordinances amendatory thereof or supplementary thereto, in the event that said bonded principal shall fail, neglect, or refuse to make any such installation or construction work comply with said ordinances.

Every Certificate of Registration shall expire on June 30th of the fiscal year in which the same is issued.

Sec. 3. Fee For Certificate. Before the issuance of any Certificate of Registration to a Refrigeration Contractor, as provided in this ordinance, the applicant therefor shall pay to the Board of Building and Safety Commissioners a fee of Twenty-five Dollars ($25.00) for the use and benefit of the City of Los Angeles.

Sec. 4. Revocation of Certificate of Registration. The Board of Building and Safety Commissioners may, upon its own motion or upon the complaint of any person, revoke any Certificate of Registration of any Refrigeration Contractor for any of the following reasons:

1. Violation of any of the provisions of Ordinance No. 28,700 N. S. relative to the installation, alteration, repair, or adding to any refrigerating system.
2. Violation of any of the provisions of this ordinance.
3. Fraud or misrepresentation in connection with any refrigerating system.

Before revoking any such Certificate of Registration, the Board of Building and Safety Commissioners shall hold a public hearing at which any such Refrigeration Contractor may present evidence and reasons in defense of his Certificate of Registration, either in person or by his attorney; and before any such hearing is held, any such Refrigeration Contractor shall be given written notice at least ten (10) days prior to said hearing.

Whenever any such Certificate of Registration has been revoked, it shall be unlawful for any such Refrigeration Contractor to install, alter, repair, add to, or service any refrigerating system until such person, firm, or corporation has obtained a new Certificate of Registration and paid the fee required therefor by this ordinance.

The revocation of any Certificate of Registration shall not be deemed or construed to exempt any Refrigeration Contractor from any other penalty provided for in this ordinance or any other ordinance of the City of Los Angeles.

Sec. 5. Penalty. Any person, firm, or corporation violating any provision of this ordinance shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be punishable by a fine of not more than Five Hundred Dollars ($500.00), or by imprisonment in the city jail for not more than six (6) months, or by both such fine and imprisonment.

Every such person, firm, or corporation shall be deemed guilty of a separate offense for each and every day during any portion of which any violation of this ordinance is committed, continued, or permitted by such person, firm, or corporation and shall be punishable therefor as hereinbefore provided in this section.

Sec. 6. The City Clerk shall certify to the passage of this ordinance by a unanimous vote and cause the same to be published once in the Los Angeles Daily Journal.

I hereby certify that the foregoing ordinance was passed by the Council of the City of Los Angeles by the unanimous vote of all members of said Council present, there being not less than twelve (12) members present, at its meeting of October 17, 1933.

ROBT. DOMINGUEZ,
City Clerk.

Approved this 26th day of October, 1933.

FRANK L. SHAW,
Mayor.

GEORGIA POWER SPONSORS SERVICE MEN'S CONTEST

ATLANTA — How thoroughly servicemen have learned about Kelvinator refrigerators, and how expertly they use their knowledge is being brought out in a "super-service Kelvinator contest" now being sponsored by Georgia Power Co.'s appliance repair division here.

The contest opened Oct. 2, and awards will be made on the basis of service knowledge after the closing date, Dec. 30.

Kelvinator Sales Corp. and Graybar Electric Co. have contributed to the prize money and are to have representatives among the judges. In addition, Graybar and Kelvinator have supplied the utility with six factory-trained men to instruct the men.

Awards are to go to men whose divisions or districts have followed rules of the contest most accurately, shown the greatest amount of interest, and gained the greatest benefit as well as conducted all of its appliance work throughout the contest to the best interest of the company and customers.

SERVICE NOTES

By K. M. Newcum

Remedy for Chattering Water Lines

CHATTERING water lines and condensers on water-cooled units have given the service man considerable trouble, for it is difficult to correct the chattering without first correcting the cause of the condition.

The chattering of the tubes in the condenser and the water lines is very annoying to the user, for this vibration is usually carried through the entire cold water system to which the machine is connected.

Very often the service man will block the water pipes at several different points in an attempt to stop the vibration from being transmitted through the building. Blocking the pipe seldom proves successful, for while the noise may be stopped at one point, it is bound to reappear at some other point along the line, and results in a repeat service call and a dissatisfied customer.

Caused by Compressor Strokes

To get to the cause of the trouble we find that the chattering noise is a direct result of the action of the pressure type water valve which (by the action of the compressor) is opening and closing with each complete stroke of the piston. Thus, on each compression stroke the water valve opens, and on the suction stroke the valve closes.

This condition usually exists where the line connecting the bellows or diaphragm of the water valve, to the high side of the system is connected directly into the cylinder head of the compressor. With each pulsation of the pressure, i.e. each new supply of gas that is pumped through the discharge valve into the cylinder causes a momentary rise in operating head pressure, which is directly responded on the diaphragm of the valve, causing it to open further and admit a greater supply of water to the condenser.

As the piston starts on the suction stroke, the sudden rise of pressure dies down and the valve tends to close. This action is similar to the flickering of the pressure hand gauge while the compressor is in operation with the gauge attached to the head.

We know that by closing, rather throttling the discharge shut-off valve, the flickering may be reduced to a minimum, and the gauge will still be supplied with sufficient pressure to register any corresponding changes in pressure.

How to Remedy It

To correct the chattering condition, we must then provide some means of preventing the pulsations of the compressor from responding on the water valve.

This can be done by installing a capillary tube (having a small orifice) in the connecting line between the cylinder head and the water valve. This will, with its throttling effect, tend to even out the pressure that is being supplied to the diaphragm of the water valve. With an even pressure on the water valve, the cause of the condition has been corrected and the chattering should cease.

If a capillary tube is not available, a special fitting may be made to serve the purpose by filling the opening in a ¼-in. connector, or coupling with solder, and drilling a hole through the solder in the fitting with a No. 64 steel drill.

This fitting, having a small orifice, will have the same throttling effect as the capillary tube, and will work quite as well to prevent chattering.

Another method is to remove the connecting line from the cylinder head and tee it in the liquid line near the liquid receiver. The operating head pressure at this point is very steady, for the pulsations of the compressor have, in effect, been evened out by the gas passing through the con-

Between Receiver and Strainer

denser and receiver.

It must be kept in mind, if this method is used, that the line should be teed in the liquid line between the liquid receiver and the line strainer, and never between the line strainer and the evaporator, for the strainer may become restricted, or completely clogged. This is no unusual occurance.

Should this happen, the pressure on the water valve and also the high pressure cut-out device (which is usually teed in the same line with the water valve) will be decreased and the water valve will close. In reality, where the line is teed in between the strainer and the evaporator, and the strainer becomes clogged, the water valve and the high pressure device is shifted from the high-pressure side of the system to the low-pressure side.

Thus there would be no water supply for condensing purposes, and no high pressure cut-out to prevent excessive head pressures.

Installing the Valve

Most water valves are designed so that the valve closes against the pressure of the water, which has a tendency to reduce valve chattering. An arrow indicating the correct direction of flow through the valve will usually be found on the valve body near the inlet or outlet connection. The water should be connected to flow in the indicated direction.

It is always good policy to install the valve ahead of the condenser; that is, so the high pressure water will be present in the supply line only, and low pressure water will be supplied to the condenser.

If the water valve is installed in the outlet of the condenser, high pressure water will be present in the condenser at all times and should a leak develop in the condenser, there is always danger of the pressure of the water overcoming the idle pressure of the refrigerant, and flowing into the refrigerant circuit.

10 Million Visit G. M. Building at Fair

CHICAGO—Attendance at the General Motors building housing the Frigidaire exhibit at A Century of Progress has passed the 10-million mark, H. W. Newell, Frigidaire vice president, stated last week.

Figures show, Mr. Newell said, that nearly half of the persons passing through the main gates of the Fair have visited the Frigidaire exhibit.

A Frigidaire super-series model was presented to the 10 millionth visitor, Miss Miriam Nagle, 21, Fox Lake, Ill.

As she entered the exhibit, she was greeted by Rufus C. Dawes, president of the Fair, and James A. Grier, resident manager of General Motors Corp.

APPAREL STORE HAS ILG AIR CONDITIONING

GREENSBORO, N. C.—The first known installation of an air-conditioning system in an apparel store in the Piedmont section has been completed on the second floor of Ellis Stone & Co., ladies ready-to-wear shop here, according to Henry W. Moore, manager of the Greensboro office of the Ilg Electric Ventilating Co.

"The Southeast has been slower than other sections, the Southwest for instance, in purchasing comfort cooling. Heretofore the few installations that have been made in the Piedmont section (Virginia and the Carolinas), have been in theaters, restaurants, and five- and ten-cent stores," Mr. Moore states.

"Apparel stores, one of the largest potential fields for commercial air conditioning, have just begun to take an active interest in the matter in this section."

Within the next year or so he expects from 20 to 30 apparel stores to install cooling systems in the Piedmont section.

This Ellis Stone store has a 14-ton installation, of the propeller-fan, direct-expansion, unit-cooler type. One 7½-hp. and one 5-hp. Ilg-Kold compressors using methyl chloride, together with four No. 19 and two No. 17 Ilg-Kold ceiling type unit coolers have been installed for delivering the cool air.

The compressors are located in the basement, 150 ft. from the farthest cooler, and are controlled automatically by room thermostats. The fans on the coolers operate continuously, independent of the compressors, to keep the air in circulation at all times.

The system was figured to maintain 85° F. dry-bulb temperature, and 40 per cent relative humidity inside when the outside temperature is 95° F. with 50 per cent relative humidity. This provides an effective temperature of 74.5° F. inside.

Prior to the installation of this system, the second (top) floor of this store was much too hot, and frequently customers would not remain to make purchases, Mr. Moore says. Now the floor, which is 150 ft. long and 35 ft. wide, is maintained from 8 to 12° cooler than the outside temperature during hot weather, and the store advertises it as "Where Spring Is Spending the Summer."

July 1 this store purchased the system just for their ready-to-wear department which occupies two thirds of the floor. This department sells fur coats and dresses. The system was installed for this fashion floor primarily to increase their summer sales of fur coats.

Sales in this department increased immediately, and such favorable comments came from the customers that two weeks after the first job was completed, the management ordered comfort cooling the the remainder of their second floor, which included the children's department and office. This was also Ilg equipment.

The second installation was completed September 15 and the entire floor was satisfactorily cooled for the brief remainder of the summer. This is another example of how one cooling system will sell another, and how quick stores will buy after they see the profitable results that can be obtained with refrigerated air, Mr. Moore points out.

Costs of operating the entire system will average approximately 28 cents per hour for electricity, Mr. Moore predicts. The increase in the store's power bill for the first month's operation only amounted to $35. However, the weather was not extremely hot that month and it will doubtless run higher in warmer months next year.

A cooling tower was installed on the roof, same being built locally. The store advises that they found no appreciable increase in their water bill after the first month of operation.

Shortly after this Greensboro installation was completed, a similar clothing store in Richmond made such an installation, equipment being furnished by another manufacturer.

BOOKS

"AIR CONDITIONING"

Authors: James A. Moyer and Raymond U. Fittz. Publisher: McGraw-Hill Book Co., Inc., 330 W. 42nd St., New York, N. Y. Date of Publication: 1933. Number of Pages: 384. Price: $4.

WRITTEN by the two authors who are well known for their book "Refrigeration," this new book on air conditioning is a comprehensive treatment of the fundamentals of the science, with discussions of a few of the important applications such as theaters, restaurants, railroad cars, etc.

The first half of the book is given over to discussions of principles of air conditioning, air distribution, cooling, cleaning, filtration, refrigeration for air conditioning, refrigerants, etc. with emphasis on the theoretical phases which are most difficult to understand. This section is replete with air flow diagrams, formulae, charts and tables.

Air washers, humidifiers, and dehumidifiers are described in some detail in the chapter on cooling methods, while the chapter on refrigeration tells about the various elements of a refrigeration system for a large central air-conditioning installation.

Under "Types of Equipment for Air Conditioning," the authors tell about ammonia and carbon dioxide reciprocating compressors, gear compressors, Carrier centrifugal machines, steam jet refrigeration for air conditioning, air cooling with ice, dehumidification requirements, and dehumidification with calcium chloride.

Little is said about unit coolers and small unit air conditioners of the Frigidaire, General Electric, and Ilg type which were widely applied this past summer to comfort cooling of small restaurants, offices, and shops. Equipment for the larger installations is given extensive treatment, however.

The book contains a thorough technical explanation of fans and auxiliary equipment, giving some valuable data on air distribution, duct friction and duct proportioning, grilles, registers, and instruments for use in measuring conditions of air.

One chapter considers the problems of residential air conditioning, describing Holland Furnace and Carrier systems of air conditioning homes, and includes some of the data developed by the Detroit Edison in its research into air cooling of homes by ice during the summer of 1932.

The last chapter is an interesting projection into the possibilities of heating and cooling homes by application of the reversed refrigeration cycle, correlating some of the data of Haldane (English) and A. R. Stevenson with that of the authors.

The book comprises a worthwhile contribution to the library of any refrigeration engineer who is actively engaged in air-conditioning work.

ICE BOX CODE HEARING IS HELD NOV. 14 BY NRA

WASHINGTON, D. C.—Public hearings on the code of fair competition for the household ice refrigerator industry were to have been conducted by Deputy Administrator Malcolm Pirnie, beginning at 10 a. m. Tuesday, Nov. 14, in the Department of Commerce building here.

The proposed code was submitted by the National Refrigerator Manufacturers Association.

The proposed code would establish a maximum work week of 40 hours during the calendar months of December to June inclusive, and 32 hours during the remaining months, with exceptions in the cases of executives, outside salesmen, office employes, and watchmen. The minimum wage proposed is 35 cents per hour for employes engaged in processing, and $14 per week for office workers.

G. A. MAY MAKES SIX BEER COOLER SALES

WASHINGTON, D. C.—G. A. May, salesman for Barber & Ross, Inc., local Kelvinator distributor, has made a number of sales of commercial refrigeration equipment in combination with Kelvinator-Temprite beer-cooling equipment.

In the Kit-Mar restaurant at 14th and Florida Ave. was installed a 40B-3 Temprite cooler serving two beer spigots and a water tap, coils for a kitchen box and and a keg cooler, and a ¾-hp. compressor to handle the job.

To J. V. Price at 412 12th St. Mr. May sold a 30B-2 Temprite cooler, coils for a keg-cooling compartment and a 4-ft. delicatessen display case, and a ½-hp. compressor.

C. R. Scott's place near the Howard theater purchased a 40B-3 Temprite cooler, coils for keg and bottle-cooling compartment, and a ¾-hp. unit.

"Mama Shugrave's" at 1506 14th St., N. W., has installed a 30B-2 Temprite cooler, a coil for a keg cooler, and a ⅓-hp. unit, upon Mr. May's recommendation.

Johnson's Buffet Lunch at 2463 18th St., N. W., has installed a 30B-2 Temprite cooler, Kelvinator forced convection cooling units for keg and beer storage in the basement and a short order box on the main floor, and a ¾-hp. compressor.

The installation at Annie Kearts at 704 11th St., N. W., consisting of a 40B-3 Temprite cooler, and coils for a keg cooler, with a ½-hp. unit, is near to the distributor's headquarters, and is thus used as a "demonstrator."

BUSH OPENS N. Y. BRANCH

NEW YORK CITY—Bush Mfg. Co. of Hartford, Conn., has just opened a branch office at 41 East 42nd St. here. R. C. Reese, formerly with Universal Cooler Corp., is manager of the office, according to C. T. Bappler of the Bush factory.

PATENTS

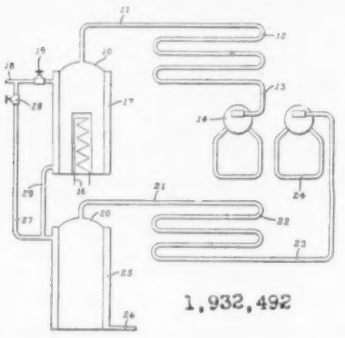
ISSUED OCT. 31, 1933

1,932,431. APPARATUS FOR FREEZING LIQUID OR SEMI-LIQUID SUBSTANCES IN RECEPTACLES. Lewis B. Winton, Greenwich, Conn., assignor to American Sealcone Corp., New York, N. Y., a corporation of New York. Application Sept. 2, 1932. Serial No. 631,456. 20 Claims. (Cl. 62—104.)

1. In apparatus for freezing the contents sealed in receptacles, a tank containing a freezing substance, a cabinet arranged to support and enclose the tank, and an endless conveyer having means to releasably engage and suspend sealed receptacles, and means mounted in the cabinet to guide a stretch of the conveyer to travel in different planes to progressively engage the receptacles suspended from said conveyer stretch into and through the freezing substance in the tank to freeze the contents of the receptacles progressively upwardly from the bottom and inwardly from the sides of the receptacles and move the receptacles out of the tank.

1,932,492. REFRIGERATING APPARATUS. Harry F. Smith, Dayton, Ohio, assignor to Frigidaire Corp., Dayton, Ohio, a corporation of Delaware. Application Sept. 29, 1930. Serial No. 485,109. Renewed March 15, 1933. 20 Claims. (Cl. 62—118.)

2. Refrigerating apparatus comprising two intermittently operating absorption machines, each machine including a gener-



1,932,492

ator-absorber, means for supplying heat from an external source to one of said generator-absorbers, means for heating the other of said generator-absorbers, said last named means comprising means for utilizing the heat extracted from the first of said generator-absorbers.

1,932,513. AIR-CONDITIONING METHOD AND APPARATUS. Jesse H. Davis, Baltimore, Md., and Samuel M. Anderson, Sharon, Mass., assignors to B. F. Sturtevant Co., Boston, Mass., a corporation of Massachusetts. Application July 18, 1931. Serial No. 551,614. 20 Claims. (Cl. 62—117.)

20. A method of conditioning air which consists in circulating a cooling medium in heat exchange relationship with the air, intermittently absorbing heat from the medium, continuing the circulation of the medium after the absorbing of the heat therefrom has stopped and until the medium rises to a predetermined temperature, then stopping the circulation, and resuming the circulation of the medium when the absorbing of the heat therefrom is resumed.

1,932,533. REFRIGERATING BODY. Edwin M. Post, Jr., New York, and George O. Hanshew, Forest Hills, N. Y., assignors to International Motor Co., New York, N. Y., a corporation of Delaware. Application May 11, 1933. Serial No. 670,418. 4 Claims. (Cl. 62—91.5.)

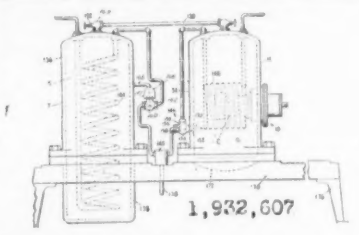
1. A vehicle body having a chamber, a compartment below the chamber to receive heat transfer mechanism, a refrigerant chamber in the compartment, a heat interchange chamber in the compartment, a heat interchange element in the heat interchange chamber, means in one side of the body to afford access to the compartment, means in the rear of the body to afford access to the refrigerant chamber, and means in the other side of the body to afford access to the heat interchange element.

1,932,586. COMBINED HEATING AND COOLING SYSTEM. Frederick A. Hellmann, Chattanooga, Tenn., assignor of one-third to Walter S. Adams, Jr., Chattanooga, Tenn. Application Aug. 13, 1931. Serial No. 556,747. 2 Claims. (Cl. 257—8.)

1. In a combined heating and cooling system having a common air circulating conduit, a circulating fan in the conduit; a single heat exchanger in the conduit; independent heating and cooling means connected to the exchanger; an air washer and humidifier comprising a cylindrical screen mounted to rotate on a horizontal axis in the conduit; a pan of water within which the lower portion of the screen is submerged; and air propelled blades connected to rotate the screen.

1,932,607. REFRIGERATING SYSTEM. Elmer O. Smith, Ottumwa, Iowa. Application May 7, 1929. Serial No. 361,234. 8 Claims. (Cl. 62—115.)

1. In liquefaction apparatus, a compressor, a condenser, a housing for said compressor, cooling means in said housing



1,932,607

and for said condenser, and means rendering the cooling means for said compressor inoperative until a predetermined temperature is attained in said housing.

1,932,689. ICE CUBE PAN. Michael K. Buchanan and Albert G. Horton, Ocean View, Va. Application May 16, 1932. Serial No. 611,688. 12 Claims. (Cl. 62—108.5.)

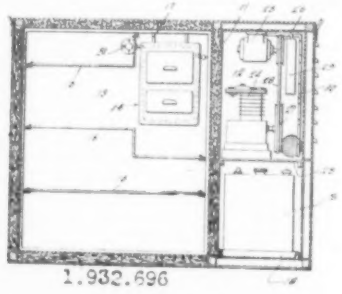
12. In an ice cube pan, a relatively stationary grid member in the pan including spaced partitions formed of flexible material, a movable grid member in the pan and cooperating with the spaced partitions to form ice cube molds, means for raising one end of the movable grid member so that the movable grid member will be tilted at an angle to the bottom of the pan for causing flexing of the spaced partitions to facilitate the breaking of the ice cubes from the stationary and movable grid members.

1,932,694. REFRIGERATOR DISPLAY CASE. Leonard G. Gray, Decatur, Ill. Application Jan. 20, 1932. Serial No. 587,827. 13 Claims. (Cl. 62—89.5.)

1. A refrigerator display case comprising in combination a rectangular lower section for holding refrigerating medium, a display section above the lower section, and removable pans in longitudinal arrangement supported in normal position along the upper portion of the lower section so as to provide in effect a partition between the refrigerating section, and the refrigerating medium therein, to which the pans are directly exposed, on the one hand, and the display section on the other hand, the front of the display section having fixed glass whereby commodities on display within the section can be seen from the front, the back of the display section having slidable doors with glass therein providing closures for the openings that permit access to the interior of the display section, said lower section being divided into a plurality of brine receiving compartments, each having a cooling coil, said display case having in operative arrangement therewith refrigerating means comprising a compressor and a condenser constituting part of a refrigerating system that includes the cooling coils, there being piping leading from the compressor with valve controlled branches leading to each coil, there being branches leading from each coil and constituting part of return piping leading to the compressor.

1,932,696. PORTABLE REFRIGERATOR. John Heydthausen and Lester E. Stipe, Portland, Ore. Application Aug. 17, 1932. Serial No. 629,207. 1 Claim. (Cl. 62—116.)

A refrigerator of the character described comprising a portable casing, said casing having a partition therein, said partition dividing the casing into a food compart-



1,932,696

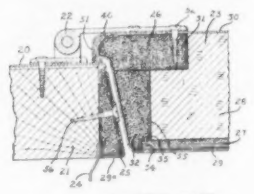
ment, and a mechanism compartment, a closure for each of the said compartments, a mechanism supporting platform in said mechanism compartment dividing said compartment into upper and lower chambers, and a storage battery in said lower chamber, the remainder of the operating mechanism being located in said upper chamber and supported by said platform.

1,932,731. REFRIGERATING APPARATUS. Berkley L. Hathorne, Laconia, N. H., assignor, by mesne assignments, to Copeman Laboratories Co., Flint, Mich., a corporation of Michigan. Application April 20, 1927. Serial No. 185,214. 5 Claims. (Cl. 62—108.5.)

1. A receptacle for containing substance to be frozen, and receptacle having side walls, a base and a grid unit, and means permanently associated with said walls and base for presenting the adhesion of the frozen substance thereto and permitting said unit and frozen substance to be ejected when said receptacle is inverted.

1,932,822. REFRIGERATING APPARATUS. William C. Holbrook, Dayton, Ohio, assignor to Frigidaire Corp., Dayton, Ohio, a corporation of Delaware. Application March 23, 1929. Serial No. 349,461. 2 Claims. (Cl. 20—35.)

1. A door for a refrigerator cabinet comprising an insulated body portion, a layer of sheet material having a materially lower



1,932,822

heat conductivity than metal and moulded to form a lining for the inner surface of said body portion, a metal outer covering for said body portion, said covering overlapping said inner lining, and a gasket carried between said lining and said cover and supported by said lining and said cover.

1,932,829. LATCH FOR REFRIGERATOR DOORS AND THE LIKE. Stuart W. Parsons, New Britain, Conn., assignor to The Stanley Works, New Britain, Conn., a corporation of Connecticut. Application Oct. 21, 1931. Serial No. 570,053. 3 Claims. (Cl. 292—337.)

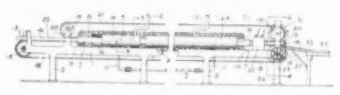
1. In a latch for refrigerator doors and the like, a casing, a pin carried by said casing, a bolt pivoted on said pin, a spring pressed plunger hingedly connected to said bolt, an operating lever pivoted in said casing and cooperating with said plunger, and a saddle plate having a cradle in which said bolt has a bearing.

1,932,877. REFRIGERATING APPARATUS. Edmund E. Allyne, Shaker Heights, Ohio. Application Dec. 24, 1931. Serial No. 583,061. 9 Claims. (Cl. 62—118.)

1. In an absorption type refrigerator, a cabinet, a refrigerating compartment, a still-absorber, evaporator and condenser connected in operative cycle, a flat tank for impounded cooling medium lying adjacent the rear wall of said cabinet, and a cylindrical condenser arranged vertically in substantially the center thereof and provided with draft tubes extending up through it.

1,932,887. SHARP FREEZING DEVICE AND PROCESS. Albert Giger, Vancouver, British Columbia, Canada. Application Nov. 26, 1930. Serial No. 498,406. 4 Claims. (Cl. 62—114.)

1. A sharp freezing device comprising a hollow body adapted to contain a refrigerant, said body having an open ended



1,932,887

passage forming a freezing zone extending therethrough, a plurality of conveyor belts extending through and beyond said passage in substantial contact with two of its walls, said conveyor belts being so disposed in relation to each other as to form a channel for the reception of food products for conveyance through the freezing zone.

1,933,039. AIR CONDITIONING APPARATUS. Samuel M. Anderson, Hyde Park, Mass., assignor to B. F. Sturtevant Co., Hyde Park, Mass., a corporation of Massachusetts. Application Dec. 5, 1928. Serial No. 323,951. 3 Claims. (Cl. 261—78.)

1. Air conditioning apparatus comprising a chamber through which the air being conditioned flows, a liquid tube, a compressed air nozzle for blowing a blast of air across the mouth of the tube, means for supplying liquid to the tube including a tank connected with the tube, means for maintaining a constant level of liquid in the tank, and means for regulating the liquid level to produce a positive or negative head with respect to the mouth of the tube to control the volume of the spray.

1,933,042. REFRIGERATOR. Charles F. Belshaw, Dearborn, Mich. Application May 29, 1930. Serial No. 456,984. 4 Claims. (Cl. 62—31.)

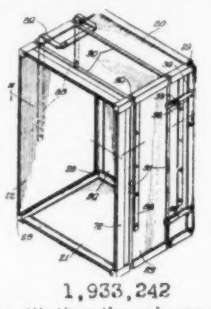
1. In a refrigerator, the combination of a removable ice container being provided with an opening in its front wall, said removable ice container being further provided with an opening in one of its remaining walls, means for guiding ice through said last mentioned opening into said removable ice container, removable closure means in said refrigerator adjacent said last mentioned means, and fixed means partially covering said first mentioned opening in said removable ice container.

1,933,166. HEAT TRANSFER MEDIUM. Herbert Wilkens Daudt and John Elton Cole, Wilmington, Del., assignors to E. I. du Pont de Nemours & Co., Wilmington, Del., a corporation of Delaware. No Drawing. Application June 21, 1932. Serial No. 618,564. 9 Claims. (Cl. 62—178.)

1. The process of transferring heat, which comprises condensing a gaseous substance containing a compound of sulphur, oxygen and fluorine, and evaporating the condensate.

1,933,242. REFRIGERATOR CONSTRUCTION. Jerome T. Card and William C. Holbrook, Chicago, Ill., assignors to Masonite Corp., Chicago, Ill., a corporation of Delaware. Application June 18, 1930. Serial No. 461,901. 13 Claims. (Cl. 217—17.)

1. In a refrigerator structure, a liner structure comprising corner strips having longitudinal grooves, non-metallic fibrous panels engaging in said grooves to be aligned by said corner strips, and tensioned metallic bands surrounding said panels and strips to clamp said strips and panels in assembled position, said



1,933,242

bands constituting the sole means for retaining said strips and panels in assembled relation.

1,933,256. METHOD AND APPARATUS FOR REFRIGERATING AND CARBONATING. Justus C. Goosmann, Mount Vernon, N. Y., assignor to American Dryice Corp., New York, N. Y., a corporation of New York. Original application May 10, 1930, Serial No. 451,244, now Patent No. 1,926,278. Divided and this application April 7, 1931. Serial No. 528,262. 10 Claims. (Cl. 62—91.5.)

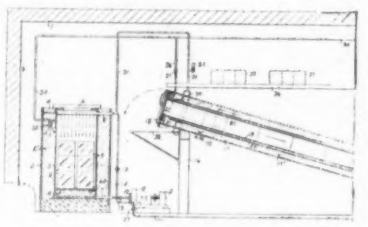
1. A method of cooling and carbonating liquids by utilizing solid carbon dioxide comprising the steps of sublimating solid carbon dioxide, circulating the carbon dioxide gas formed through solid carbon dioxide to condense it into liquid carbon dioxide, circulating the liquid carbon dioxide through a body of liquid to be treated to chill it and mixing carbon dioxide gas with the chilled liquid.

1,933,257. METHOD AND APPARATUS FOR SPEED FREEZING. Justus C. Goosmann, Mount Vernon, N. Y., assignor to American Dryice Corp., New York, N. Y., a corporation of New York. Application July 16, 1931. Serial No. 551,169. 8 Claims. (Cl. 62—91.5.)

2. In an apparatus of the type described, the combination comprising means forming a chamber, a conveyor within said chamber, a source of liquid carbon dioxide, means for spraying liquid carbon dioxide from the source into the chamber, and a discharge connection for the chamber including a pressure control valve for maintaining a predetermined pressure within the chamber.

1,933,258. REFRIGERATING APPARATUS AND METHOD. Justus C. Goosmann, Mount Vernon, N. Y., assignor to American Dryice Corp., New York, N. Y., a corporation of New York. Application April 14, 1932. Serial No. 605,162. 17 Claims. (Cl. 62—91.5.)

1. A method of refrigerating articles comprising the steps of gradually advancing the articles through a closed space in



1,933,258

contact with a heat conducting wall, circulating a refrigerating medium in contact with said wall to abstract the heat through the wall from the articles spraying the warm medium over the solid carbon dioxide to cool it for further use and introducing the carbon dioxide gas produced by sublimation of the solid into the closed space.

1,933,279. TUBING. Bert L. Quarnstrom, Grosse Pointe Park, Mich., assignor to Bundy Tubing Co., Detroit, Mich., a corporation of Michigan. Application Oct. 6, 1931. Serial No. 567,321. 8 Claims. (Cl. 137—75.)

1. A tubing comprising a strip of metal fashioned into hollow cross sectional form with the edges of the strip overlapping and providing a seam lengthwise of the tube, each edge having a groove and an adjacent projecting portion, with the grooves and projecting portions of the respective edges interlocking with each other, and means on an edge overlapping the other edge for locking the edges against separation by relative radial movement.

1,933,330. AIR CONDITIONING DEVICE. Willard M. Johnson, Kansas City, Mo., assignor to Conditionaire Co., Kansas City, Mo., a corporation. Application June 18, 1931. Serial No. 545,164. 7 Claims. (Cl. 126—116.)

1. An air conditioning device comprising a horizontally positioned housing having side walls, an air inlet conduit at one end of the housing, an air outlet conduit at the other end of the housing, a heating element positioned in the housing and spaced from the walls of the housing to form air passageways therebetween, means for directing air through the housing in wiping contact with the heating element and the walls of the housing, means for retaining a body of water covering the bottom of the housing for adding moisture to the air, and means located between the air inlet and the heating element for selectively diverting the air below the heating element and over the body of water in the housing when the heating element is not in use.

1,933,517. COMBINED WATER COOLER AND SUPPORT THEREFOR. Truman C. Tucker, Bessemer, Ala. Application May 6, 1931. Serial No. 535,488. Renewed Sept. 25, 1933. 5 Claims. (Cl. 62—142.)

1. In a device of the kind described, a hollow unit including a water-dispensing compartment having an outlet in its bottom, an ice-compartment adjoining the water-dispensing compartment and having a drain-opening in its bottom, a bowl under said drain-opening, and a continuous wall on opposite sides and rear part of the bowl and forming an upward continuation of said bowl extending to the rear and from the bowl to the bottom of said ice-compartment and united therewith, for the purposes specified.

Killed in 'Plane

ARTHUR A. TROSTLER

Assistant general sales manager of Majestic was killed in an airplane crash last week.

Distributor Andrews Of Norge Dies

DETROIT — Stricken with pneumonia enroute from Baltimore to Detroit, Leroy L. Andrews, president of Columbia Wholesalers, Inc., distributor of Norge products in the Baltimore-Washington area, died Nov. 12 at Harper hospital here.

Coming to Detroit to attend the Norge distributor convention, Mr. Andrews arrived here early last week, but owing to his condition was immediately rushed to the hospital. His condition grew rapidly worse despite efforts of several specialists.

With him at the time of his death were relatives from Baltimore, his business associate, L. R. McDowell of Washington, and executives of Norge Corp.

Mr. Andrews' wife died last September. He leaves a daughter, Lilah, 8, and a son, Leroy, Jr., 4.

QUESTIONS

Commercial Coils

No. 1424 (Manufacturer, Texas)—"We would like to have complete list of all American manufacturers of finned coils for commercial refrigeration. It is possible that we may soon be interested in purchasing quantities of coils for our own commercial cabinets, to be installed here in our factory. Hence we would like to take it up with the larger, most reliable coil manufacturers."

Answer—See list of manufacturers on pages 223 and 224 of the REFRIGERATION DIRECTORY AND MARKET DATA BOOK.

Balancing Outfit

No. 1425 (Manufacturer, Denmark)—"On page 11 of your Sept. 13 issue you mention a portable electrical balancing outfit. Please give us the name and address of its manufacturer, as we have use for such equipment in our shop."

Answer—General Electric Co., Schenectady, N. Y.

Self-Contained Ice Maker

No. 1426 (Dealer, Iowa)—"We are interested in finding the manufacturer of a self-contained electric ice cube maker with a capacity of around 100 to 150 ice cubes and a small storage space in the bottom. This is to be used in an apartment building."

Answer—Here are the names of four manufacturers:

Baker Ice Machine Co.
1518 Evans St., Omaha, Nebr.

Fedders Mfg. Co.
57 Tonawanda St., Buffalo, N. Y.

General Electric Co.
Specialty Appliance Sales Dept.
Nela Park, Cleveland, Ohio

Servel Sales, Inc.
119 N. Morton St., Evansville, Ind.

Compressor Parts

No. 1427 (Parts supplier, California)—"Our company is being organized to distribute replacement parts for all makes of refrigerators, and will operate throughout the entire West.

"We have a selling organization on the road, and maintain warehouse stocks at Seattle, San Francisco, and Los Angeles. At the present time we are looking for a source of supply from which to purchase repair parts for all makes of compressors, and are wondering if you can put us in touch with some organization making them.

"Should you be acquainted with any organizations that are not properly represented on the Pacific Coast, we will be glad to communicate with them."

Answer—The NEWS will give the name of this inquirer to any manufacturer requiring representation on the West Coast.

Dehydrators

No. 1428 (Manufacturer, Illinois)—"Will you please advise us what material is used to absorb moisture from between glasses of refrigerated display cases, and where the material can be purchased.

"We believe there are one or two manufacturers furnishing a chemical container that is fitted into the front of their display cases, and having perforated openings."

Answer—The most common substance used for this purpose is Silica Gel, available from the Silica Gel Corp., 1800 Baltimore Trust building, Baltimore, Md.

Household Refrigerator Control Manufacturers

No. 1429 (Engineer, Tennessee)—"The writer is being issued a patent (on Nov. 14) on a defrosting device for both self-contained and multiple household refrigerators, and would like to mail a copy of it to the largest firms making controls.

"Please furnish me with a list of the largest control manufacturers, and the names of their chief engineers. Or should I send the patent copy to their patent departments?"

Answer—Send the patent copies to the chief engineers, as the patent departments usually do not investigate a patent until the engineering department has expressed interest in it.

Following are the principal controls manufacturers, in some instances with names of the chief refrigeration engineers:

E. C. Raney
Automatic Reclosing Circuit Breaker Co.
1304 Indianola Ave., Columbus, Ohio

E. B. Newill
Frigidaire Corp., Dayton, Ohio

Cutler-Hammer, Inc.
314 N. 12th St., Milwaukee, Wis.

General Electric Co.
Industrial Dept., Schenectady, N. Y.

L. M. Persons
Penn Electric Switch Co.
2000 E. Walnut St., Des Moines, Iowa

Exports of Electric Refrigerators

September, 1933, Shipments Reported by the Bureau of Foreign and Domestic Commerce, Washington, D. C.

	Electric Household Refrigerators		Electric Commercial Refrigerators Up to 1 Ton		Parts for Electric Refrigerators
	Number	Value	Number	Value	Value
Austria	15	$ 423	...	...	$ 180
Belgium	109	8,895	4	$ 895	5,202
Czechoslovakia	161	5,019	5	1,156	879
Denmark	5	239	28	2,050	1,674
Finland	6	453	1	87	111
France	248	16,330	41	4,093	12,768
Germany	52	3,171	10	422	4,363
Gibraltar	1	66	...	...	...
Greece	1	51	...	...	172
Irish Free State	...	...	13	910	367
Italy	89	6,298	31	3,267	4,806
Malta, Gozo, and Cyprus	2	332	...	...	...
Netherlands	167	9,684	55	5,283	8,465
Norway	34	1,990	5	471	682
Poland and Danzig	1	102	...	...	62
Portugal	5	291	12	1,714	827
Rumania	...	...	...	...	44
Spain	9	790	10	1,814	1,336
Sweden	32	2,566	6	588	630
Switzerland	23	1,082	45	4,682	7,877
United Kingdom	939	34,545	84	8,616	34,519
Canada	41	4,486	45	2,774	14,164
British Honduras	...	...	...	...	2
Costa Rica	8	648	...	...	...
Guatemala	5	446	...	...	32
Honduras	12	1,478	2	342	11
Nicaragua	14	1,457	...	...	21
Panama	46	4,450	5	1,100	1,278
Salvador	34	3,028	...	...	...
Mexico	287	15,910	6	854	2,944
Newfoundland and Labrador	...	...	...	...	60
Bermudas	30	2,751	4	1,461	358
Barbados	15	1,645	...	...	87
Jamaica	22	2,627	...	...	104
Trinidad and Tobago	7	607	...	...	52
Other British West Indies	26	2,112	...	...	303
Cuba	132	10,380	1	101	1,751
Dominican Republic	26	2,534	...	...	49
Netherland West Indies	23	2,438	...	...	336
French West Indies	1	124	...	...	...
Haiti, Republic of	4	334	...	...	413
Virgin Islands of U. S.	...	...	...	...	119
Argentina	1,093	51,502	139	11,901	33,826
Brazil	456	40,952	51	6,130	3,575
Chile	16	1,112	...	...	410
Colombia	76	5,469	2	334	19
Ecuador	1	40	...	...	22
British Guiana	1	64	...	...	...
Surinam	11	804	...	...	39
Peru	9	606	...	...	115
Uruguay	22	1,798	5	617	1,512
Venezuela	36	3,646	...	...	1,075
Aden	1	120	...	...	20
British India	88	8,602	17	2,743	2,646
British Malaya	...	...	...	...	420
Ceylon	4	395	2	284	1,611
China	410	35,666	7	1,022	424
Netherland East Indies	76	7,325	16	3,269	491
French Indo-China	...	...	2	199	...
Hong Kong	36	3,054	3	382	1,041
Japan	9	911	1	226	1,340
Palestine	27	2,159	18	3,142	1,922
Philippine Islands	88	6,297	13	2,258	828
Siam	...	...	...	...	366
Syria	2	272	1	146	40
Turkey	18	1,359	1	215	...
Australia	34	3,022	...	...	9,921
French Oceania	1	75	...	...	...
New Zealand	39	2,081	9	995	1,230
Belgian Congo	1	123	...	...	...
British East Africa	1	115	1	112	279
Union of South Africa	1,704	152,394	30	3,686	8,431
Other British South Africa	12	1,230	...	...	...
Gold Coast	6	556	...	...	74
Nigeria	1	81	...	...	...
Other British West Africa	5	429	...	...	...
Egypt	14	1,757	2	544	451
Algeria and Tunisia	62	2,038	5	597	1,040
Other French Africa	5	669	...	...	...
Morocco	23	1,715	6	667	330
Mozambique	11	1,383	6	766	411
Canary Islands	10	938	3	285	326
Other Spanish Africa	4	356	...	...	3
Total	7,045	$490,897	753	$ 83,200	$181,286
Puerto Rico	175	$ 21,345	10	$ 1,953	$ 1,475
Shipments to Hawaii	449	$ 45,371	17	$ 2,567	$ 1,945

CLASSIFIED

PAYMENT in advance is required for advertising in this column.

RATES: Fifty words or less, one insertion $2.00, additional words four cents each. Three insertions $5.00, additional words ten cents each.

EQUIPMENT FOR SALE

FOR SALE—Sacrifice. Your own price. 1100 brand new Mueller intake and discharge brass valves. Box 598. Electric Refrigeration News.

FOR SALE. Two dehydrating or drying ovens manufactured by Young Bros. for refrigeration manufacturer. Excellent condition. Complete equipment. Used very little. Overall outside dimenaions each oven, 59" wide x 77" high x 41" deep. Very reasonable. Detroit Engineering & Sales Co., 320 Beaubien St., Detroit, Mich.

MISCELLANEOUS

REFRIGERATION Mechanics, and Students. Blue Prints showing a variety of up-to-date commercial installations. Prints are easily read and all details are clearly shown. Explanatory text with each print. Write for descriptive folder. Box 596.

QUOTATIONS WANTED

DEVELOPERS of new sealed compressors, with orders available, desire quotations from well-equipped plant having ample machining, assembling, drying and testing facilities—not necessarily including cabinet building. Box 597. Electric Refrigeration News.

C. J. Tagliabue Mfg. Co.
Park & Nostrand Aves., Brooklyn, N. Y.

J. H. Ashbaugh
Westinghouse Electric & Mfg. Co.
Mansfield, Ohio

Cooling Towers

No. 1430 (Plumber, Illinois)—"We would like to have the names of manufacturers of condensing cooling towers. We want a completely assembled cooling tower using steel construction."

Answer—Try the following:

Binks Mfg. Co.
3114 Carroll Ave., Chicago, Ill.

Edwin Burhorn Co.
West Fifth St., Bayonne, N. J.

Cooling Towers Co., Inc.
15 John St., New York, N. Y.

Frick Co., Waynesboro, Pa.

Harry Cooling & Equipment Co.
1649 Broad St., Philadelphia, Pa.

Beer Coil Cleaner

No. 1431 (Manufacturer, Virginia)—"Please give me the address of the Premier Coil Cleaning Co., mentioned on page 40 of your BEER COOLING EQUIPMENT DIRECTORY AND HANDBOOK."

Answer—228 S. LaSalle St., Chicago, Ill.

CROSLEY PRODUCTS ARE FEATURED IN CONTEST

CINCINNATI—Joan Crawford, motion picture star now playing in "Dancing Lady," has been made the center of a contest named after the picture, in which Crosley radios and refrigerators will be given as prizes.

Crosley dealers in cities where "Dancing Lady" is being shown are tying in with the contest by using posters featuring the star, by advertising in newspapers, by displaying Crosley products in theater lobbies, and by cooperating in special stunts with theater managements.

Advance announcement of the contest was carried in the November issue of *Modern Screen Magazine*, while the December issue devoted four pages to an explanation of the rules and pictures of Miss Crawford posed with Crosley products.